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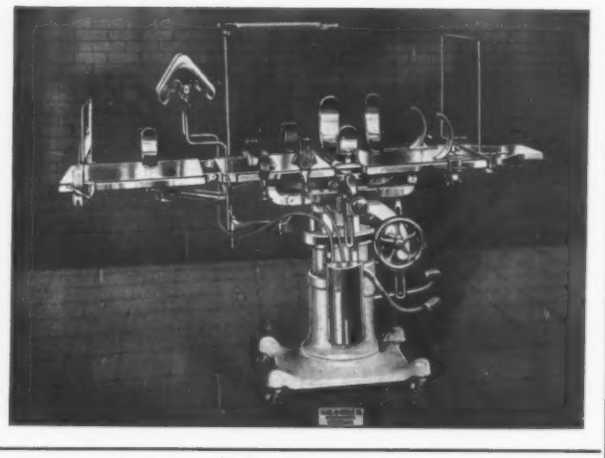

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Hospital Progress

Official Magazine of the

CATHOLIC HOSPITAL ASSOCIATION OF THE UNITED STATES AND CANADA

Editorial Office: The Catholic Hospital Association, 124 Thirteenth St., Milwaukee, Wis.

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The Festive Season

CHRISTMAS and Thanksgiving both warm the heart with festive cheer. The one is our great national day of acknowledgment and gratitude to God for His numberless blessings. We should be proud and glad that our great nation, through its chief executive, acknowledges before the whole world, by public proclamation, the debt we owe to our Father in Heaven for all His gracious gifts to our young nation.

Christmas is the feast of the whole world, a true acknowledgment of and gratitude to God for the greatest of all gifts ever vouchsafed to our human nature, when the eternal Word of the Father became Flesh and dwelt amongst us as our brother. The joy of the Incarnation makes Christmas the greatest feast of all the year.

There are two suggestions we should like to emphasize this Christmas. One is, that our hospitals offer their patients and personnel generous gifts of beauty and joy, for the whole year and for many years, in the shape of lovely and holy pictures, exquisite in art as well as in piety. These can be had so readily and cheaply nowadays.

The second suggestion is that all hospitals greatly increase at Christmas their store of worthy and inspiring books, so that the bright new covers of many choice volumes may reflect the Christmas spirit. Among these books "The Patient's Book" and "The Patient's Guide" will doubtless be included. We are pleased to know that last year they helped to bring the Christmas spirit into many hospitals.

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Hospital Progress

Vol. VII DECEMBER, 1926 No. 12

The Light of Christmas in the Hospital

Edward F. Garesché, S. J.

WITH each recurring year the wonder and the beauty of Christmas are reborn in men's souls. This charming and genial feast, with its human warmth and glow and its heavenly fervor of charity, rejoices the earth, at Christmas-tide, as it has done for hundreds of years, age upon age, since the first happy morning of our Saviour's birth.

The light that streams from the Christmas manger irradiates the whole world. It pierces into the center of hearts. It dispels the gloom and sorrow of this sad earth and makes it laugh again as though it had recovered its first innocence. At Christmas, enmities flee away, old wounds and grudges are healed, the forehead of pain is smoothed with cheerfulness. Men pity the poor at Christmas and send them cheer. They forgive enemies at Christmas, they remember old friendships. The usual selfishness of the world and the instinct for getting and hoarding is changed at Christmas to a riot of generous giving. We give and give, sometimes gifts useless in themselves, but useful in this, that they commemorate the Gift of gifts when the Word was made Flesh and dwelt amongst us on the first Christmas morning.

The Cause of Christmas Merriment

At Christmas the world loses for a time its staid and sour look, the result of ages of selfishness and sin, and recovers some of the joy of childhood. The earth is swept with a merriment that comes at no other season and for no other motive than Christmas. The inner motive of this merriment is joy over the mystery of the Incarnation, joy at the amazing fact that the Word of God, true God in all eternity, has become a man like unto ourselves and truly dwells amongst us. Who would not be glad and laugh and sing to realize that God is his brother? Such a relationship is reason for an everlasting rejoicing. No wonder the earth rings with laughter on Christmas morning, teems with gifts, and resounds with greetings. It is glad because God has become a Man.

But there is still another reason for Christmas rejoicing. If Christ is our brother, He unites us all in the bonds of a relationship most heavenly as well as most human. We are all by nature children of Adam, but by the grace of Christ we have become children of God. Christ is our brother and He is also the Only Begotten of the most High. Therefore, His Father is our Father, and we have the right henceforth to say "Our Father Who art in Heaven." This brotherhood of man, this Fatherhood of God, springs from the fact that the Word of God has become Man, and dwells amongst us. Christmas is the feast of rejoicing at that spiritual relationship to God our Father and to our human brethren which springs from the Incarnation.

The light, therefore, that pours from the manger of Bethlehem, illumines the whole world with a new realization of human brotherhood. It transfigures the earth and glorifies all humanity. It ennobles the least and lowliest member of our great human family, showing him or her to be no less than a brother or sister of God. Thus, in a certain reverent sense, using the word as the Fathers of the Church used it, we might even say that the light of Christmas deifies our humanity.

The Light Transfiguring the World

Consider how the entire earth is transfigured by the realization that God has become Man. Look out upon the world as it appears to the unbeliever. What a welter of mediocrity! What a hodge-podge of insignificance! Of what account are the men of a generation? They come and pass, as numerous and as insignificant as a swarm of flies. Each individual is but a number in an endless series, a wave in a restless ocean, a sand on a shifting beach, a drop in an everlasting rainfall. Well might one echo the gloomy thought of Marcus Aurelius when he sighingly declared that today man is but a little mucus, and tomorrow he is dust and ashes!

But in the light of Christmas-tide, which streams from the manger, the whole human race is transfigured and glorified. Now, we look no longer at the poor, insignificant individual, for we see in every countenance, however lowly, the living image of the God-man. We recognize in every one of the countless millions of earth's populations a blood relation of the Most High. No matter how many may be the royal family of earthly kings, each one derives great dignity from the blood of princes. This blessed new-born Babe is of heavenly lineage, and His Kingship is of infinite honor. Hence

He can impart to every one of all the teeming generations of His brethren, the real and signal honor of being a brother or sister of the Most High.

This dignity is moreover quite independent of the personal worthiness of the individual. It is derived from the serene God Who imparts to the slightest of His kin this stupendous honor. The divine consecration ennobles even lowly things. The chalice which is simple and poor becomes as sacred by its consecration to the uses of the Holy Sacrifice as the most precious cup that ever was compounded of precious jewels and gold. In the Church of St. Mary Major at Rome, a few poor pieces of wood, blackened and worn with age, are preserved with immense reverence in a shrine compact of crystal and gold. At the most solemn feast of the year, and especially at Christmas time, multitudinous lights burn before that sacred shrine. Crowds gather there in reverent prayer. The hearts of the faithful melt with devotion at the sight of those venerated bits of wood. Why all this esteem for things so poor and simple in themselves? Because it is piously believed, according to the tradition of ages, that these planks of wood formed the manger of the stable at Bethlehem, they are venerated forever, not for their own sake, but because they are reputed to have once borne the weight of the blessed Child at Bethlehem, and from that contact they are holy forever.

The Consecration of Humanity

In a similar way, the coming of Christ into the world has sanctified all humanity. The light that streams from the manger gilds and transfigures the lineaments of every soul. Light is no respecter of persons. The impartial sun sends his golden beams upon the forehead of the poor and the rich, the learned and the lowly, with generous splendor. The Australian bushman receives as much of the light of day as does the princely scion of European culture. So also the glory of the Incarnation, pouring forth from Bethlehem, ennobles every human being whatever his rank or age or race or personal excellence or demerit.

If we but make these reflections practical and apply them as we should, what a glorious radiance will the light of Christmas pour into the hospital. For a hospital is the world in miniature. In the hospital are to be found all manners and conditions of men. It is the sufferings, the diseases, the afflictions of our common humanity which bring men to the hospital, and so, like a great, impartial net, it draws up out of the sea of human nature all sorts of fishes.

It is only natural, even to the best of hospital workers, to discriminate a little, to favor some patients and to dislike others, to find delight in ministering to some and to detest working for others. But the light of Christmas morning gilds the brow of every soul in the hospital with more than mortal splendor. Look, now, at the head on any pillow, and you shall see the brother or sister of Christ. What matters it that this one is gentle and the other perverse, this one attractive and the other repulsive? Their personal qualities and characteristics are swallowed up in the astounding fact that they are Christ's blood relations. What we do for them, we do for Him Who is their brother, and at the same time most truly the Son of the High God. It is easy to say these things, but difficult to realize them, easy to utter them in words, hard to express them in deeds. Yet the whole soul of hospital service and the highest ideals of hospital activity are expressed in these simple words, to recognize in every soul the blood relation of Christ and to treat each one as another Christ, holding His place, representing His Sacred Person.

Again, every person in the hospital, all the hospital workers, the greatest and the least of all who enter the hospital doors, are touched and glorified with the same light of Christmas morning. They also are the blood relations of the Most High God. They also represent His supreme dignity, Who said that whatsoever we do even to one of the least of His brethren we do it unto Him. In our dealings with them, we should forever keep in mind that we are really dealing with Christ, and that whatsoever we do to them He takes it as done unto Himself.

Renewing Christmas Charity

At every Christmastide, therefore, we must renew this spirit of faith and love in the light of the crib of Bethlehem. We must search our hearts to see how much true Christian love we have for all who are in the hospital. Do our looks, our words, our actions, convey forever that love, that loyalty, that tenderness for others which we would surely give to Him if He came in His own person, to be a visitor, a worker, a patient in our hospital? It is even more a merit and a credit to us to be kind to His ambassadors, His brethren, than it would have been to minister to Himself. For in Him shines out the glory of the divinity and how could we help but love Him and serve Him in His proper person? But many of His brethren are in themselves repulsive, difficult to deal with, and uncongenial. Hence we do all the more service by working for Him alone, and disregarding the shortcomings of His brethren.

Besides, we have the merit of faith. "Because thou hast seen Me, Thomas," He said, "Thou hast believed: Blessed are they that have not seen, but believe." If we were to deal with others merely as human beings, yielding to our personal preferences, kind to the kind, and gentle to the gentle, but cold and indifferent to those who are repulsive to us, what merit should we have? "Do not also the heathen this?" But if we love and cherish every one impartially, for Christ's dear sake, because they are brothers and sisters of the Babe of Bethlehem, then indeed the merit of faith will be added to our charity. Then the light of the manger of Bethlehem will illumine and glorify all the otherwise slight and trivial actions of our lives.

Clinical Research in General Hospitals[1]

Arthur B. Landry, M.D., Hartford, Conn.

THERE is no one here today concerned with the direction of a hospital, who is unacquainted with the trend of medicine. Contact with your staffs, knowledge of the minimum requirements for a class A hospital as set forth by the American College of Surgeons, acquaintance with the new developments in the sciences which are directly or indirectly connected with the art of medicine, and the demands constantly made upon hospitals for improvement give you a fair idea of medical progress. Then, too, dealings with patients make you realize the public's appreciation of modern methods applied in the art of healing. Furthermore, the not infrequent endowments for research laboratories in hospitals and the general recognition of the value of paid full-time investigators indicate the spirit of research invading our institutions. Certainly hospital methods have been revolutionized, as well as added to, in the past two decades, because of the onward march of science and the adoption of its principles by the medical profession.

CHRISTMAS, 1925, AT ST. MARY'S KELLER MEMORIAL HOSPITAL NEW NURSES' HOME, SCRANTON, PA. FIRST CHRISTMAS IN THE NEW HOME.

There is just praise for the hospital which keeps pace with modern medicine; for to keep pace means the expenditure of large sums of money and—what is more praiseworthy—it means vigilance, perseverance, and study on the part of the hospital personnel. Unfortunately there are some institutions which because of economic urge or for less cogent reasons, have failed to keep abreast of the times. As an example of this one need but read the 1924 report by the Council on Medical Education and Hospitals of The American Medical Association.[1] In this report one finds that of the 88 New England hospitals with a capacity of from 100 to 300 beds, 20.5 per cent were without chemical and pathological laboratories, and 25 per cent without x-ray laboratories, while of the 46 New England hospitals having a capacity of over 300 beds 28.2 per cent were without chemical and pathological laboratories and 43.3 per cent without x-ray laboratories. In this same report other deficiencies, such as inadequate nursing forces and resident staffs below requirements, were brought out. Scientific development, particularly in the larger hospitals, did not keep pace with physical growth. The larger institutions had the greater percentage of deficiencies. A priori, it would seem that expansion of these hospitals should have been held in abeyance until such time as scientific needs had been met. Better do less in accordance with recognized standards of efficiency than more under a restriction of those standards.

As superintendents of hospitals, great responsibilities are attached to your office. Not the least of these is the administration of funds both private and public that come to the hospital. Looked at purely from an economic standpoint, expenditures for scientific investigation might seem poor investment. However, if the hospital is regarded not simply as a "boarding house for the sick"[2] or a place for the relief of suffering but, as an institution for the study of disease, its cure and prevention, one realizes the necessity of first applying money in amounts commensurate with scientific requirements. Hospitals must not go on and on, building extensively without providing modern methods for those who will patronize them. The point that we want to emphasize here is the need for better and more scientific work. The thing that we want to plead for especially is Clinical Research in our hospitals.

By Clinical Research is meant the examination, observation, and scientific study of patients as they present themselves for treatment in a general hospital. It is distinguished from medical research which aims at discoveries to "increase medical knowledge as a whole," and which deals mostly with experimental studies in an effort to reveal unknown facts about disease and new methods for its study. Clinical Research entails the application of known scientific methods in the investigation of cases. It is the *sine qua non* of rational medicine and as such should be a primary aim of the general hospital.

[1]Read at the New England Conference of the Catholic Hospital
[2]Read at the New England Conference of the Catholic Hospital

Bedside study by the clinician stands foremost in Clinical Research. By it signs and symptoms are elicited, the course of illness observed—and the effects of treatment noted. Evidence of a purely clinical nature is thus obtained and may suffice to permit the making of a diagnosis. Indeed bedside study is at times all that reveals evidence from which conclusions can be drawn. We refer particularly to this fact, since it is thought by many that this phase of medicine is given minor importance. "The whole truth about any case will never be found at the bedside; still less will it be found in the laboratory."[3] However, it will be more nearly reached by searchers at both these sources.

Having given bedside study its proper place, attention is directed to laboratory aids. Often, when discussing the provision of modern aids and laboratory specialists for our hospitals, one hears that such provision is necessary for teaching hospitals only. One is told that beyond x-ray and pathological laboratories there is no general need. But why these, to the exclusion of chemical, bacteriological, and other special laboratories necessary to carry on scientific studies in an up-to-date manner? Can we assume that the physician, after leaving the medical school and the teaching hospital, is not called upon to apply the scientific methods taught him? If ours are not teaching hospitals, they are institutions in which to apply practically the knowledge gained from the great field of Medical Research. Furthermore, hospitals have the obligation of giving their patients the advantages of the latest methods. Then, too, shall we lose the spirit of investigation, study, and learning, because of our association with non-teaching hospitals? Not at all, if we recall our aim and mission.

It must be obvious to us all that laboratories have an important place in the hospital, that they are necessary and of practical value. But laboratories presuppose trained specialists who can not only direct them but also give competent advice in the study of patients. Dr. Frederick Lee, professor of physiology at Columbia in 1914 said, "Staffs of hospitals should be made to include, in addition to the always existing pathologist, a physiologist, a physiological chemist, a pharmacologist, and a bacteriologist competent to observe human beings from their respective points of view."[4] And Sir William Osler made the following significant remark: "How helpful it would be if clinicians had always at hand skilled physiologists, pathologists, and chemists to apply their most advanced technic to clinical problems and not the technic alone, but the biological and chemical principles upon which modern medicine as an exact natural science is founded."[5] These statements are not out of fantastic dreams but out of knowledge, from years of practical experience. Dr. John B. Deaver recently said, "I should like to record my conviction that the logical place for a laboratory of medical and surgical research is in connection with a well established, well conducted, modern hospital. Every properly conducted hospital contains within itself the clinical material essential for stimulating imagination, observation, etc.; in other words, every patient represents an actual or potential question mark demanding attention."[6] In this paragraph is embodied the suggestion for search for new knowledge but the last remark is as well the basis or reason for the application of Clinical Research. If "every patient represents an actual or potential question mark demanding attention," the hospital has a distinct mandate delivered to it and should aim to fulfill it in approved fashion.

Every patient presenting himself at a hospital is there subject to rigid investigation into the cause of the disease from which he is ailing. A history covering every phase of his physical condition from the time of his birth is taken, a thorough physical examination is made. From the data thus obtained a diagnosis may suggest itself but the correctness of that diagnosis is far from proved. A more searching survey of the case is carried on through laboratory aids, each yielding either negative or positive information. Out of this extensive investigation, at both the bedside and laboratory, a mass of evidence for subsequent study is presented not only by the clinician but also by the laboratory specialists. Working together in harmony of purpose this group of investigators will sum up the evidence and a reasonable conclusion will be reached. A scientific diagnosis will thus have been made.

Rational treatment is possible only after a scientific diagnosis has been reached. Research applies to treatment as well as to diagnosis. It is here that modern methods again prove their value. As a concrete example of this let us take the treatment of diabetics. You all know how the physician in his conduct of diabetic treatment relies upon daily reports from the laboratory and diet kitchen. The administration of insulin and regulation of diet depend upon accurate information from these two sources. One might go on multiplying examples but the above illustration no doubt suffices.

Unfortunate and tragic as deaths are, they open additional avenues for clinical research. They afford opportunity for post-mortem study. While annual hospital reports attach a diagnosis to each case coming under observation, the inference does not follow that all the diagnoses given are correct. Dr. Richard Cabot some years ago proved from clinical and necropsy findings that the ante-mortem diagnosis was incorrect in something like 50 per cent of the cases. And there is reason to believe that what he found to exist in the Massachusetts General Hospital also exists in other hospitals of equal standing. Perhaps the greatest check we have on diagnosis is complete necropsy study. Comparative study of clinical with post-mortem findings is productive of much good. It should have the support of every hospital superintendent. In fact, it should be included in the policy of every hospital which aims to remain in the front rank.

In his introduction to Vol. I of Oxford Medicine, Dr. Christian, referring to post-mortem study, says, "Still, thorough examination after death remains the most valuable check which we possess as to the correct-

ing of the results of our ante-mortem studies of patients. Without it the physician acquires a dangerous facility in misdiagnosis and a self-satisfaction in his methods that early become fatal to his progress. The autopsy which reveals to the physician or surgeon his error in diagnosis and treatment stimulates him to renewed effort to improve the quality of his work."[7] This expresses but one reason for performing autopsies. Over and above is the ever compelling reason of research for truth; the discovery of pathological conditions which manifested almost incomprehensible signs and symptoms. The open book reveals contents that its preface may not suggest. The revelation teaches a lesson. And the lesson, if mastered, may be applied to prevent future error and possibly prolong life if not actually to cure an ill.

Today, modern medicine requires the observation of cases beyond the period of hospitalization. Performing an operation or prescribing medicine or other forms of therapy is but the opening of another chapter in which to include the effect of the remedy applied. While much information may be obtained from the time treatment is instituted, the ultimate results of treatment will not always be known before the patient is discharged from the hospital. The majority of cases subsequently need to be followed closely and systematically. For this purpose a thorough-going follow-up service is necessary. Perhaps there is no hospital department needing finer organization; for it is at once beset with great difficulties. Once patients leave the hospital its further contact with them is no easy matter. The best assurance of their return lies in the promise that they will have the continued observation of the physician under whose direct charge they were, previous to discharge. Few patients care to be followed by subordinates. So true is this that no follow-up organization should start on its mission without having chiefs of departments who will give of their time to patients returning for observation. If real devotion be given to this important aspect of medicine the majority will avail itself of the splendid opportunity and our hospitals will find in this latest attention to disease the culmination of the aims of Clinical Research.

In this paper no attempt has been made to give a detailed plan of organization for Clinical Research. A summary, so to speak, of a big subject has been presented with a view to stimulating interest in scientific medicine and suggesting certain fundamental principles upon which some hospital policies may be based. There is nothing in Clinical Research beyond the reach of the modern hospital. In closing it may be truthfully said that Clinical Research does not include experimenting. It applies only proved methods of investigation.

Considering what has been said, may the Catholic hospital strive for leadership in this field of medicine? Let it aim above the requirements for a Class A rating. Let it always so bear the standard of light and truth that, as it carries on its noble mission, a grateful public will rise up and call it blessed.

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EDITORIAL NOTE

Through an unfortunate oversight, two interesting papers in the November HOSPITAL PROGRESS did not have the name of the author attached. The papers were "The Child in the Hospital" by Miss Pauline Tartre of the Bangor (Maine) Public Library, and "The American Library Association's Service to Hospitals" by Miss Lillian Bechtold Gries of the American Library Association, 86 E. Randolph St., Chicago, Ill.

1925 AND 1926 GRADUATION CLASSES, ST. PAUL'S HOSPITAL, SASKATOON, SASK., CANADA.

Methods of Teaching in Schools of Nursing

The Significance of Study

By a Sister of Charity of Providence

THOUGH the technique of study is comparatively a new thing, still there never was a time in the history of man when he was not confronted with situations that challenged his intellect more or less. Man has always been forced to do purposeful thinking whether he thought of it as such or not. The question may be raised here, however, "Did he always do this thinking in a manner that made for the greatest economy of time and energy and did he always secure correct results?" Unfortunately the answer must be in the negative; it was a trial and error process the greater part of the time; he had no definite method to enable him to solve his problems and it is only recently that educators have given any special attention to how an intelligent man proceeds to deal with a new situation and as a result of this investigation plans have been formulated that have for their end to help the individual direct his mental processes.

A survey of the available literature seems to warrant the conclusion that despite the existence of a number of books upon the art of study there still remains much to say about the subject, especially as it relates to methods of study in schools of nursing, where there seems to be a great need of a better knowledge of how work may be best prepared in order to train the young nurse to initiative and self-reliance. That study is a real work is now universally recognized; hence, the conclusion has been reached that the habit of study is acquired by the application of certain laws and methods the same as many other habits and skills necessary for success in life.

LAKE ON THE GROUNDS AT ST. ANNE'S HOSPITAL, CHICAGO, ILL.

Students in high schools and colleges have been studying, it is true, for years and naturally enough when they come to our schools of nursing, we have a right to expect that they know how to study, but too often they have not been studying efficiently; they have not formed correct habits of mental work and moreover do not know how to go about forming such habits.

No scheme of instruction, however, will bring all students to the same level of proficiency. There will always be bright students and dull students in our schools of nursing just as there are in other institutions of learning, but it is possible to increase the efficiency of each student in the use of her mental equipment and to teach her to make the most of what brains she has.

Physical Conditions for Study

Among some of the general conditions which influence study, perhaps some of the most important, apart from physical defects, are such physical conditions as: inadequate exercise, insufficient sleep, ill-ventilated rooms, all of which render the nervous system inefficient, blunt the intellect, prevent clear thinking and hinder the student from carrying through to successful completion the most reasonable undertaking. The environment, if favorable, has much to contribute to a successful study period. Good light, even temperature, proper equipment are all worthy of consideration.

With the physical conditions of the student, and the external conditions surrounding her made right, the next step is to form a place-study habit. Everyone knows the decided influence of the definite place in the chapel upon one's disposition to pray; the special chair in the living room that invites one to rest and relaxation; the shady nook in the garden where one can live through the scenes of a good novel. The student who forms a place-study habit will meet no difficulty in taking on the study attitude in the proper place. The student must never forget that study is hard work and that she will get out of an hour of study just what she puts into it, and no more; consequently, it must be done in a straight back chair, sitting upright in an attitude of attention, ready to plunge in immediately and not stand shivering on the bank. The student who retires to her room, removes her uniform, dons her dressing gown, puts on her bedroom slippers, reclines in a big chair or lies on her bed, and thinks she is getting ready to study is making a tremendous mistake; she is getting ready to go to sleep and this is what will happen in a very short time.

The Time Habit in Study

A time-study habit is equally as important as a place-study habit. There seems to be a tendency on the part of the nervous system to turn to mental work at times ingrained by habit. Many students have found it very valuable to make out a schedule, and hold to it, for hours of study. Some students form habits of using morning hours, others evening hours with equal success.

The student should be made to see the advantage of attacking the problem at once, allowing no time for

mental dawdling; she should cultivate the habit of working at her maximum capacity until she has mastered the work in hand. Sometimes there is a woeful waste of time in just the process of getting started. A student should try to reduce her starting time from minutes to seconds. If all this is pointed out to the student, it will not be long before she will come to appreciate the value of a system.

It is safe to say that every student nurse, whatever her motive for study, would rather succeed than fail in her efforts. Indeed many young nurses' dislike for the theoretical side of their work is not due to dislike for work or subject matter, but to inability to accomplish what they undertake. High school students are potentially better psychologists than we commonly suppose. When they come into the school of nursing they look to find the practical guidance which will effectually and profitably direct them as to how to commit material to memory, how to attack a problem, how to hit upon the central thought of a lesson or a passage, how to see the significance of the paragraphing of the text, to use the table of contents, or to run down references, how to see the relation between theory and practice, and how to move backward and forward between the two forms of experience, all of these are, for them, real practical problems upon which practical suggestions from the teacher will be eagerly welcomed.

The Teacher's Part

This assistance on the part of the teacher should consist, not in doing the student's work for her but in preventing her from working in the dark in the face of a new situation. To do her work for her would never produce power for independent work; and to do things without consciousness of method or meaning will not lead to power to do them again or to do other things. Direction of student activity is the ideal basis for teaching her to study.

In Training for Effective Study, by Frank W. Thomas, the four following conditions are suggested as means for successful study:

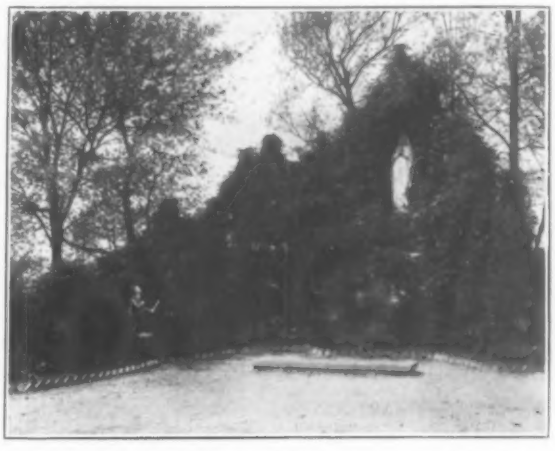
(1) "The pupil must have a clear idea of what is to be accomplished in her work."

(2) "There must be sufficient motive or reason for the study."

(3) "The methods of study must be effective if the best results are to be accomplished."

(4) "There must be sustained effort until results are secured."

It is very clear that to meet the first and second condition is not altogether the responsibility of the student, the teacher must take her share in this, by making the assignment clear. The day when "the next chapter" was assigned is past. The student must know just what the teacher expects of her at the next class period. A common excuse for failure to prepare lessons is, " I did not know we had to do that." Giving due consideration to cases where such a plea is merely an excuse, the fact remains that the statement is far too often justifiable. Probably the greatest waste of time, and frequently of effort, arises from the fact that the student does not know what she should do in a study period. The student's attitude toward study is largely dependent upon the assignment which must be something of real value to the student. She must recognize the result to be accomplished by the task as a thing which will meet a need, immediate or remote, in her further work. It is not enough that she understands the assignment, that it is clear to her what she is to study, she must also know the purpose for which she has to study. Thus, each assignment should be made primarily in terms of product rather than of process. It should not be a matter of "do this" but of "accomplish this."



GROTTO OF OUR LADY OF LOURDES, ST. ANNE'S HOSPITAL, CHICAGO, ILL.

A complaint often registered against the student nurse is that her conception of study is limited chiefly to memorizing; that she does no real, purposeful thinking. It is interesting to note, however, the extent to which the form and quality of a student's work is dictated by the attitude and demands of either the instructor in the classroom or the doctor in the lecture hall or both. There is a vicious custom among teachers in general of making memory questions the chief feature in tests and examinations. Until this is recognized as vicious, and is abandoned, the student nurse is not going to change her method of study. What does it mean to a nurse to know the names of all the main arteries of the body if she does not know where to place a pressure in the presence of a hemorrhage?

Questioning the Book

A very important problem in learning how to study is to learn how to get information from books. The student should be taught to approach her book as she might a friend with a question in her mind; in other words she should formulate questions to ask from her text or other books; then, she should read and reread a chapter, a page, or a paragraph until she has forced from it the answer to her question. A high school student was once asked her reaction on the reading of the Ancient Mariner, and she answered that she did not quite understand it, she thought one would have

to read it twice really to grasp its meaning. Many students expect to read a paragraph, a page, or a chapter once, and be able to discover the thought of the author immediately, if they do not, like the high school student mentioned above, they lay it aside and frequently leave very valuable material to pass on to another passage.

The student should be reminded that if one needs information and goes to some other person and asks for it, she can keep on asking the person questions until a method of answering is adopted which the questioner can understand. On the other hand if one goes to a book and insists on getting the information in just the form in which the question is present in one's mind, she is not likely to find the exact answer to her question in the book. The way in which one has to get information out of the book is to learn to use the book in its own way. Perhaps the information which one wants is scattered over three or four pages. Possibly it is to be found only by consulting two or three different books. Very frequently one has to read in the book many things that she does not need for the answering of her question. In this respect it is not altogether different from asking a person questions. One very frequently gets more information than she needs when she asks a question. The listener must learn, then, to make a selection from among the things she hears if she is to concentrate her attention on the particular items wanted.

The answer which the students get from either the person or the book, must be secured through careful selection. If the student reads straight ahead in a book and gets the information that is there presented, she follows the lead of someone else. She tries to formulate her thinking along lines laid down in the book. She takes for granted what is there; uses no mental processes of her own; questions nothing on the printed page and eventually takes on the habit of never raising a question in any circumstance whatsoever. One very important part of instruction in any course, accordingly, should be to get students to raise questions about the subject under discussion. There is nothing so disastrous in intellectual life as the attitude, that one has all the information she needs. If the teacher has steered the student in the right direction for the answer to her questions, and if she recognizes the task as a thing that will meet her needs, she will be stimulated to earnest endeavor and the rather common motive of working for grades or for the teacher will be absent.

The third condition for effective study, as given by Thomas, stresses the importance of correct methods of study if the best results are to be secured. In any line of activity the efficiency of method will be determined by the particular work to be done. So, in the process of studying, four types of procedure may be considered: (1) memorizing, (2) drill work, (3) collecting and organizing information, and (4) solving problems. It is not unusual to find all of these types incorporated in one assignment, but in all well-thought-out assignments one type will usually stand out, especially one of the last three.

Memorizing and Drill

The first type is not altogether to be condemned; there are still things that should be memorized, but these should include the things only that have been submitted to thoughtful study and found important for permanent retention. If understanding and appreciation precede this kind of study they will go far toward eliminating the waste and unreliability of mechanical memorizing. Does it not sometimes happen that a young student nurse can give verbatim all the bones in the human body and when she is asked to place heat over the lumbar region she becomes totally confused.

The modern idea of drill insists that students be led to realize the value of proficiency in the proposed activity before being set to practice upon it. When this is done, and the work properly motivated, students are usually eager to know how skill can be most surely and economically acquired.

The school of nursing furnishes a fertile field for the establishment of habits and skills: the making of hospital beds, the arranging of hospital furnishings, the making of hospital dressings, the setting up and presenting of hospital trays, the making of standard solutions and many other hospital procedures are acquired through a process that is followed up rather persistently until the first stage of familiarity and control is reached. Students should be taught, however, that drill is applicable to processes and rote memory, but little if at all to logical memory.

Collecting and Organizing Information

The third type, in the process of studying as given by Thomas, is collecting and organizing information. This has been treated somewhat in another part of this paper. There remains to say, however, that this type of work, while not usually as difficult as problem-solving, furnishes perhaps the surest index of skill in study. It is useless to remind the teacher that students in schools of nursing like other students, should make use of books as sources of information. One of the greatest hinderances to intellectual progress on the part of student nurses is their inability to make use of books. Often schools of nursing are inadequately equipped with books, but far more often use is not made of the books on hand, and this remark also applies to the current magazines. How many schools use the American Nursing Journal, The Trained Nurse, Hospital Progress, or Hospital Management as material for reference in their classrooms? Every teacher may with profit spend some time occasionally in discussing with her class any one of these magazines.

The student should know how to use a book, reading a book or a magazine may mean so many different things. A book is inert material of which little or much may be made, depending upon the reader and his manner of using it. A student must be trained and have acquired real skill to glean from a book only what he needs. No one voluntarily does serious reading

without a definite object in view. To ask a nurse to read "The Thirteenth, the Greatest of Centuries," would be asking something that she would never think of doing under the influence of a simple suggestion, but refer the same individual to that book as a reference to help her get information to write a paper and the resultant reading will probably be well-directed and effective as well as enjoyable. Then the student should have an object and she should learn to decide how pertinent the information is to her purpose. She should be trained too, to understand the mechanics of a book and make use of the helps and economies of time which it offers. The index, table of contents, paragraph headings are all intended to make the help the book offers easy of access.

They should know and use references in the interests of economy and thoroughness in study. The dictionary, encyclopedia, magazine index, and library catalog are sources to which the pupils should become accustomed to go for help. A source of information that should not be overlooked in a school of nursing is the record department. The student should be referred from time to time to the case histories to report conditions or prepare papers. Along with collecting data should go a critical attitude as to the worth and reliability of the material collected. When one textbook in a subject constitutes the single source of information, the opportunity for comparing and judging authorities is very limited. The natural result is that the students are inclined to accept without question whatever they see in print.

Note-taking is a common mode of collecting material in schools of nursing, and few subjects in the school are subject to so much misuse. Such customs as copying a large part of a lecture, whether fully understood or not, to be memorized and handed back in an examination; or copying practically verbatim, headings and sentences from the textbook with some feeble comment, if any at all, in the recitation—these have provoked criticism which has gone so far as to question the value of any note-taking whatsoever. The proper use of the note-book is fully justified, however, but definite training in note-taking should be given to student nurses during the preliminary period, if the note-book is to be a guide and a stimulant to right methods of study.

Problem Solving

The fourth type of procedure in effective study is problem solving. A problem is said to be an obstacle in the path of thought. Information is usually collected to remove the obstacle or to solve the problem. The first step in problem-solving is to determine the exact point where the connection is missing; the student should discover what is missing and what the facts are that will bridge that gap; she should weigh the material, see if other facts support it, make sure she is right and be ready to prove it.

A third condition put forth by Thomas for successful study is, "There must be sustained effort until results are secured." William James has said, "It is the mark of a well developed mind to be able to hold to one's task until it is finished." It happens frequently that lack of interest in a subject is taken for fatigue and the work is given up. One should question herself very closely before giving up a problem that has been once undertaken. There is experimental evidence to show that a thing will give up its secret if one will keep at it long enough

General Summary

The considerations deemed of value in this discussion have far-reaching application. Health, housing, and mental conditions are of first importance. These conditions make or mar study efficiency. The principles of physiology and psychology should be applied to the student as a learner. The law of habit formation must not be ignored. Individual differences should be recognized. The student should be trained in the skill of handling textbooks, summaries, underscoring, outlining, notebooks, reports, supplementary reading, case histories, x-ray pictures. She should understand the elements that enter into memorizing and thinking, organizing material, and applying knowledge. If the student becomes skilful in the use of these tools she will be able to undertake new tasks alone and also to evolve methods of work which will make for success.

Let Us Love Our Work

"Where we love," said St. Augustine of Hippo, many centuries ago, we do not feel the labor, or if we do feel the labor, the labor itself is loved." How true this is in hospital work! How easily we do even difficult things if we love to do them. When, therefore, you find some aspect of hospital service hard, try to love it; at least for the sake of Christ. When you have succeeded in loving, the labor will have become easy.

—E. F. G.

Basal Metabolism; A Clinical Paper

C. H. Lane, M.D., St. Francis Hospital, Blue Island, Ill.

BASAL metabolism, as such, belongs to the field of physiological chemistry as it is at present developed, and from the standpoint of clinical medicine, is only a means of diagnosis, probably more properly an interpretation of prognosis. In that respect it is a part of the general analysis of symptoms and physical findings to be considered along with blood pressure, urine analysis, pulse rate, temperature, etc., in certain types of cases. It promises to open some remarkably interesting and valuable paths in the domain of clinical diagnosis.

By a comparison of excretion with the products taken in as food we find how much and what is retained and how much is lost. This constitutes general metabolism. A study of the chemical reactions which each food-stuff undergoes in passing through the breaking up process of digestion and phases of absorption, distribution, and excretion, or storing up in the liver, muscles, etc., constitutes metabolism.

In either of these metabolic studies each element of intake (carbon, nitrogen, oxygen, hydrogen, iron, phosphorus, iodine, etc.) must be considered quantitatively. If, from an elementary standpoint, we were to compare by chemical analysis only a few, say carbon, nitrogen, and oxygen which are probably the easiest ones, we would have an enormous compilation of data concerning the fate of protein, fat, and carbohydrates, but this would require also an enormous amount of more or less complicated laboratory apparatus and equipment, and the tests take considerable time. This careful analysis requires much time and labor and then one is not sure of the cooperation of the patient over so long a period. For instance, first to be considered in a metabolic work is energy balance, i. e., a comparison of the actual energy expended by an individual or animal and the energy the individual's intake of food stuffs renders available. For our understanding of this energy balance and accurate methods of determination, we are deeply indebted to J. J. McLeod who spent years of time and a large sum of money in investigation.

The unit of energy is the calorie which is the measure of heat necessary to raise the temperature of one kilogram of water one degree centigrade. McLeod found that burning:—

One grain of starch liberated 4.1 calories.
One grain of protein liberated 5.0 calories.
One grain of sugar liberated 4.0 calories.
One grain of fat liberated 9.3 calories.

This is determined by burning separately one grain each of the above compounds surrounded or contained in an oxygen bomb immersed in water and measuring the heat generated or radiated into the water. The rate of combustion makes no difference in the number of calories, providing the same end product is produced. Now, the burning of food in the digestive process of individuals is different because it is not always complete, especially in the case of protein so the excreta must be quantitatively tested and the rest of the breaking-up process must be computed. Again, all the food consumed is not transformed into heat, so the energy expended must be measured. Thus in a Benedict calorimeter, a man on a bicycle ergometer gave off 4,833 C of heat and 602 C of energy, a calorie equalling 425 kilogram meters of work. The balance sheet on this experiment showed that the diet should furnish 5,459 C against the 5,435 liberated. The apparatus for this experiment consists of a specially constructed suite of rooms with bed telephone, light, stethoscope, athletic apparatus each with the resistance per hour computed, and timing apparatus. The experiment requires seven days. This establishes an energy balance.

Next comes basal heat production. This was found by testing several hundred men and women in a calorimeter during the last hour of a fifteen hour fast and rest, to be one calorie per hour per kilo, that is, in 24 hours a 70 kilo man will leviate 70 times 24, that is, 1,680 C. When food is taken, more heat is produced, the increase being ten per cent over the basal heat production. If a starving animal kept at 33 C is given during starvation protein enough to maintain 33 C for that animal's weight the caloric output will increase 30 per cent while with carbohydrate it will increase six per cent.

Protein liberates more heat during assimilation. It burns with a hotter flame than fats or carbohydrates. It accounts for meat eaters in cold climates and the lack of them in tropical regions. In the case of the 70 kilo man, whose intake was capable of liberating 2,500 C, his basal heat production was 70 times 24, or 1,680; adding the ten per cent for assimilation of food, we have 1,848 C; this falls far short of the 2,500, which difference is the approximate amount expended in energy.

Allowing eight hours for sleep and sixteen hours for more or less strenuous exertion, at least being up and moving around, about 2,168 calories are easily accounted for. The 332 C left from the statistical tables of diets for a certain type of workers on which this experiment was tried was accounted for in walking. To ascend a hill 1,650 feet high, a 70 kilo man uses 407 extra calories. In determining energy output, per kilo of body weight, it was found that the lighter, the greater expense per kilo. At this point some more constant factor was searched for, and body surface area was found to be almost constant, so that now a table rather than logarithms is used, a table for men and one for women using height and weight as factors and the average surface area so computed or determined. This surface area is equal to weight 0.425 times height, 1,720 times 7.84; this result differs between the sexes, but the above formula gives a far more accurate estimate than any other method, even though the caloric value of

energy balance and basal heat production differ widely in different states of body nutrition.

Age and sex are taken into account. For instance, in the newborn there is little, if any, caloric output. It increases rapidly for the first year, reaching a maximum at about three to six years, and rapidly declining to about twenty, then to a more steady decline. Females have a much lower output than males.

Influence on Disease

The measurements observed in severe exophthalmic goiter have found heat production to be increased 75 per cent above normal. The warmth of the skin and sweating which are prominent symptoms of the disease are therefore accounted for by the elimination of heat. It is very possible that the other symptoms would be produced in a normal individual if his metabolism maintained as high a level as is found in goiter.

In the opposing condition (myxedema) opposite findings result, but the heat output markedly increases during treatment with thyroid extract and more remarkably increases with the new hormone recently isolated by Kendell.

In diabetes, it has been thought the rapid emaciation and loss of strength were dependent on an excited metabolism, or a useless burning up of body material. More recent work shows that this is not the case. The basal metabolism, as calculated per unit of body surface, being within normal limits. During starvation treatment, however, the heat output may be far below normal.

In uncomplicated cardio-renal disease there is an increased caloric output. In pernicious anemia, the metabolism is normal although in severe cases it may be slightly increased by the demand for oxygen.

Before a discussion on special metabolism, which would require another paper and more statistical reports, it will be advantageous to consider briefly some facts concerning the excretion of carbon dioxide and intake of oxygen. The extent of combustion processes in the body of warm blooded animals is proportional to the amount of oxygen absorbed and carbon dioxide produced while the nature of the combustion is indicated by the ratio existing between the volume of CO_2 expired and oxygen retained. In other words the result of the investigations are partly qualitative and partly quantitative, but quantitative only in the sense of how intense is the metabolism. Thus, the metabolism of protein fats and carbohydrates resolves itself into a so-called respiratory quotient which is determined by a comparison of volumes of CO_2 expired and oxygen retained.

On account of the comparative simplicity of measuring CO_2 output and O intake, it is natural that such a method is for the most part used for measuring in quantitative observations and the method is justified by the results which are found to be in complete agreement with those of direct and indirect calorimetry under all conditions.

Several factors operate to explain differences in respiratory quotients and these are easily explained.

1. Fever. Body temperature increases combustion, as is the case in fever, or for normal health (birds have a temperature two or three degrees centigrade higher than other animals and have also a higher metabolic rate.

2. Environment temperature. In this consideration a differentiation must be made between a cold and warm blooded animal, since the temperature of the cold blooded animal varies with its environment, it being usually about two degrees above the environment, while the warm blooded animal has a constant temperature and has its thermostat centrally located to produce sweating, or shivering, as the condition may demand.

3. Work. Metabolism increases with increased energy output.

In conclusion: Basal metabolism as applied clinically is, in a few words, the rating of combustion taking place in any individual clinical subject measured in time required to replace volume for volume oxygen with carbon dioxide taking into consideration the weight, height, body surface area, sex, temperature of subject, and temperature of laboratory as compared to the combustion of a subject in normal health.

Rating of Schools for Nursing Education[1]

Sister M. Ann Patrice, St. Joseph's Hospital, South Bend, Ind.

THIS is the age of rating. In the business world banks are rated; department stores are rated; the money valuation of men is rated. Plays are classified; books are ranked according to excellence. Grammar schools are given a graded position; academies and colleges are accredited. Why all this gradation in merit?

In the first place grading produces order. It avoids that confusion which would result if all were admitted to classification without an accepted standard. In the second place, when we desire to make use of anything we are anxious to know its quality. The man who buys flour wants a certain grade of flour which will correspond with the price he is willing to pay for it. One quality of carpet sells at one price and another kind at another price. The quality we get will depend upon the price we are willing to pay.

Clothes of a certain cut and material have a grade of fashion and a trade mark to distinguish them in the market. When a salesman speaks of his goods as A No. 1, he is speaking in terms of classification. Clothes are graded; lumber is graded, furniture is graded. The knives we use in our dining rooms and the knives we use in our operating rooms are classified according to real and commercial value.

Competition is the life of trade. Apart from its utility the element of competition is back of the desire for gradation. Excellence desires not only to be excel-

[1]Read at the Indiana Conference of the Catholic Hospital Association held at Gary, Ind., Nov. 24-25, 1925.

lent but also to be considered such. We wish to be in class A, not only because we desire that which is best, but also because we desire that the world may know that we belong in that class which is best. This is not pride. It is self-protection.

Classification is really the creation of a caste, the chief requirement of entrance into which is the approximation to perfection. All men are created free and equal, but not all make free and equal use of opportunities. Hence there arises what we call inequality, and consequent segregation and classification. When we classify, if our classification be honest, we really protect the public. If A always means A, and B always means B, and C always means C, what we may call the consuming public is sure of honest treatment. It is only when B can steal or buy for itself the rank of A, or C can dishonestly enter into the class of B that grading miscarries and the public is cheated and suffers.

These which we may call basic thoughts on the subjects of grading we now carry over to the matter of this paper, "Rating of Schools for Nursing Education." The classifying of nursing schools is not a question that has come up recently. It is more than ten years since the matter was presented to the National League of Nursing Education; but because of the lack of financial support necessary to carry out the plan, this organization could not see its way clear to accomplish its purposes. In the meantime, other societies became interested, and through the work of committees spared no efforts to secure funds necessary to develop the larger aims. Because the question not only affects the nursing profession but also the hospitals and medical world in general, it was submitted by the National League of Nursing Education to various associations which are more or less dependent upon the quality of the nurse's work, with the result that the movement was endorsed by the leading organizations interested in hospital, nursing, and medical service. The cooperation of the Medical Association with the National League resulted in the formation of committees which have been working to secure the support so much needed, until finally the approach to the grading of schools for nursing education has at last been reached. So far no definite method or scheme of grading has been decided upon by the grading committee. Neither has any of the states received official information regarding the course of action to be followed in the matter of classification.

From the American Journal of Nursing, published in February of this year the following extract is taken: "In order that there may be no misunderstanding it will be well to explain that no nursing school will be graded except at its own request. It will be entirely a voluntary matter. The committee which sets the standard of grading will be composed of representatives of the previously mentioned national association. Certain essentials of a good nursing school will be agreed upon and the schools will be visited and grouped accordingly. No effort will be made to discredit any school and indeed every effort will be made to help schools in every possible way." All this seems eminently fair and should give ample assurance to hospitals and training schools that there will be no officious interference with their routine work. The purpose is plainly to help by suggestion rather than to annoy by needless and unsought supervision.

The great school of experience has proved that gradation or classification has been one of the greatest means of bringing to other educational fields and professions keener interest, more undivided attention, and consequently, better results.

Classifying medical colleges has been the biggest element in eliminating schools that were unable to produce men sufficiently qualified to practice medicine and to take over the responsibilities of surgical and medical procedure in caring for patients and controlling diseases. It requires no great power of observation to see the numerous benefits that classification can bring and has brought to the hospitals. Are we not justified in concluding that by this means our nursing schools are going to receive stimulation to raise nursing standards even higher than they are? Will it not tend to create an universality of requirements throughout the country and perhaps do away with certain states failing to recognize or to give reciprocity to graduates of other states? Above all, it will assure the patient of that service which comes under the heading of class A, the highest form of efficiency that can be procured, which is the ideal of the nurse's work.

Undoubtedly all of us desire to have our schools in Class A. How are we to accomplish this? There is no magic wand by the waving of which we can transform our schools from inefficiency to perfection. There is no easy road to desired heights in any kind of work. There is no fairy god-mother to appear suddenly and give us that high place in the academic world of nursing for which we hope and dream. We must plan, and we must carry the plan faithfully into execution.

First, then, as to studies. The state presents a required program of studies. It is intended to cover what is theoretically and practically required by the student nurse in order to fit her for professional service. Perhaps we think sometimes that there is much in this program which is meticulous and unnecessary, much that is impractical, much that is inserted to make the preparation for the profession arduous and discouraging. But after all the state has taken and has the right to take general supervision of the nursing school. Now, instead of spending ourselves in criticism which will not lighten our burdens but rather add to them, it seems best to conform as cheerfully as possible to the standard curriculum. In this way we shall show by our ready compliance that we are attracted to the work and loyal to the supervision of the state. Perhaps this very cheerfulness will make it easy to secure certain modifications either by the addition of some branches of study or by the elimination of others.

By this is not meant that there should be any desire to lower standards. Catholic hospitals have been first

in the field and should lead rather than follow. They should initiate the movements rather than be tardy in taking them up through compulsion. We cannot afford to be slipshod. If we are negligent, the training of our nurses will suffer. The graduate will suffer when she goes out into actual service and the general public will also suffer.

Perhaps it will be well here to remind ourselves that a nursing school is not now as it was apt to be considered formerly, a place into which young women came chiefly to give three years of general hospital service in part payment for the training they received. It is primarily a school. Whether it be in the classroom, the diet kitchen, or the sick room, the chief purpose must be educational rather than to get remunerative service. Here work is done for the sake of learning how to work. The hospital is a laboratory where young women are shown how to accomplish certain duties of nursing, rather than a work shop where they become producers.

After we have given to the nurse all that will fit her for the service she is expected to give to her neighbor, let us not think that this is an unproductive gift which will not bring reward in its own way. In the devoted child is seen the training of the parent. In the loyal student is seen the reward of the college. In self-sacrificing Sisters we have the full flowering and fruitage of the novitiate. In the priest is realized the careful training of the seminary. May we not say with equal truth that nurses who go out from our hospitals after having learned the theory of nursing in the classroom, and after having been shown, by experienced teachers, how practically to minister to the spent and broken, that the nursing school and hospital will also receive their reward a hundredfold? These trained girls, trained in mind and conscience, will reach places and people unfamiliar and remote where the priest or the nun cannot go and by a kind touch or by a sympathetic suggestion not only will help to restore a diseased body but will be the means also of saving perhaps a wandering soul. In this way they will carry out the teaching of Christ Who came to give life—life to body and soul—and to give it more abundantly. By virtue of their long and great traditions of the past, by virtue of the devotion which they have given to this noble profession, our Catholic hospital schools for nurses should indeed be foremost in the ranks, Class A No. 1 in every instance, and in all details.

One More Hospital Day

During the past six months accounts of the observance of Hospital Day on May 12 have been coming to the editor of HOSPITAL PROGRESS. The latest one to arrive is from St. Mary's Hospital at Gallup, New Mexico. Here, several hundred persons gathered for their first Hospital Day celebration. Children from the public and parochial schools marched to music furnished by St. Michael's Indian Band; a flag-raising ceremony under the direction of Mayor Frank Canavan began the exercises; Dr. J. W. Hannett was the presiding officer; Rev. Darling delivered the principal address; Hon. Oscar Griego delivered an address in Spanish; and several young ladies presented appropriate recitations.

After the program boxes of "all-day suckers" were distributed among the children while the older folks were making a tour of inspection of the hospital. The visitors were very favorably impressed with St. Mary's modern and complete building equipment for the care of the sick.

ST. MARY'S HOSPITAL, GALLUP, N. MEX.

CELEBRATION OF HOSPITAL DAY, INCLUDING FLAG RAISING, AT ST. MARY'S HOSPITAL, GALLUP, NEW MEXICO.

Economy in Hospital Buying[1]

Mother Mary of Providence, Pittsfield, Mass., President of the New England Conference of the C. H. A.

THIS subject, which has been assigned to me, is a rather broad topic, and I am somewhat doubtful of being able to treat it in an intelligent and systematic manner. Though I have done some buying in my day and am somewhat familiar with the quality of goods, I could participate in a round table discussion, more easily than I can define *Economy in Hospital Buying.*

However, I have thrown together some thoughts on the subject and will submit them in the hope that they may at least portray your own views and experiences in this line. No one who has had any practical relations with hospital management will deny the truth of the statement, that the financial division of hospital administration is of primary importance.

The chief inheritance of Sisters' hospitals seems to be *limited funds and unlimited demands* with a certain obligation on the part of the bursar or treasurer, to provide generously without reference to her resources. How is one to accomplish this seeming impossibility? She is restricted on the one hand by the conscientious sense of the obligations imposed by her vow of poverty, and still more so by the embarrassment of the heavy file of unpaid bills, and a shortage of cash balance on hand or in prospect; and urged, on the other hand, by the insistent demands for the latest and best, in equipment and general supplies. How to "make ends meet" is her daily problem and she is fortunate if she can hinder it from being her startling nightmare.

With her deep dependence on Divine Providence and her great trust in St. Joseph and St. Anthony, she must still bring to bear upon her subject the full weight of common sense and a careful study of her resources, in her monthly income and reliable receipts from other sources. If she fail to practice this far-seeing economy, she will be swamped and no one will pity her. It is better to do without many things that are helpful and thus live within one's means. Economy does not imply purchasing at the lowest price. Such a policy might prove to be a very extravagant outlay, a wasteful experience. *Buy close* but *buy the best.*

Let the bursar make a study of the quality of goods in every department. One or more cents per unit may make a considerable sum in the aggregate, but compared with service given by the better quality and higher-priced goods, there may be a loss on the side of the cheaper article, both in quality and length of service and a gain in favor of the goods of higher price.

Avoiding the purchase of unnecessary quantity and checking waste, will prove to be true economy. To buy in large quantities is desirable when the "market has dropped," provided one's means will allow. Staple goods that do not suffer in storage and are always serviceable can be secured profitably as advantageous prices are presented; but alas! our finances do not always permit of the expenditure. In my experience as treasurer, my great grievance for many years lay in our inability to take advantage of the market, so whenever possible it is advisable to anticipate future needs.

To summarize: Buy the best in food, in furniture, in drugs, in all hospital supplies. Economy is not so much a question of saving money, as of securing service. I would also urge right here that every Sister in the hospital, in every office acquaint herself with the cost of general supplies and their use. She will be more likely to practice economy and to exact the same care from those working under supervision, both pupil nurses and those in domestic service. Thus too, she will observe more carefully her vow of poverty.

It may be conceded that we do not look as carefully after the expenditure of money and the use of goods, as do those corporations whose hospitals are richly endowed. Those people count to the very cent, the cost of maintenance. One would not wish to urge anything like niggardliness; Divine Providence has been most lavish in every phase of creation and we must pursue a policy of generous supply, directed and governed by prudence. In community life, the Sisters may be likened to the children of the family: Superiors provide, as do the parents, and the subjects take little thought of the burden of unpaid bills. There is however, great need of a cooperation on the part of those who distribute and administer the goods and supplies, which the bursar buys, with a view to economy. It requires unceasing vigilance from those in charge to prevent that "wilful waste" which necessarily increases the cost of maintenance, but as this paper is supposed to treat of economy in buying, we will return to our subject.

Where are we to buy? There is often a strong argument in favor of *local buying* because of favors received, and support given to the hospital, or to favor some friend, who will promise to secure reduction in prices. This claim for local buying deserves some consideration, but not to the extent of causing a loss to the institution. There will always be a considerable amount of small groceries and daily supplies that can be procured from local dealers, and even those should merit a reasonable discount. In a large city, there is usually a wholesale department, in general groceries, or an exclusively wholesale store, but this does not usually apply to dry goods, bedding, blankets, and general supplies.

There is one factory in Brooklyn who dealt exclusively with the hospital supply stores, but recently took the stand that they would cultivate the trade of the hospitals direct, giving them the benefit of the dealers' prices. Buy at wholesale and if possible of the whole-

[1]Read at the New England Conference of the Catholic Hospital Association, held at Hartford, Conn., Sept. 27-30, 1926.

sale dealers. Where it is possible, buy of the manufacturer and importer. The salesman in the department store may tell you that he can give you "good prices," that he can offer you "great bargains," "save you money," etc., etc., but bear in mind that the proprietor is not doing business for the pleasure of it; he must have his profits to support his expenses. Go to the factories, if they will admit you and usually through some kind influence you can be admitted. Let me emphasize the necessity of keeping your own counsel, regarding such trading. Do not make it known that they sell you at the factories, as it may cause trouble for those who favor you and result in closing the doors to you.

You may be told that you can trade through your local buyers or merchants for the same price that you would buy at the factory, but if you need any considerable amount, this does not hold good, no matter what they may tell you. I know positively that I have bought even cheaper than the local dealer could purchase, because the proprietor wished to aid our work and cut the wholesale price. Do not be attracted by "bargain sales." Our regular discounts give us as good, if not better prices, and if there be any advantage in such annual sales, we can procure advanced information and place our order, to be filled when the sale is on. Do not pin your faith to the five and ten cent stores. You can do as well in the basement of any department store.

The Traveling Salesman

The bursar should study how to meet these agents. There are gentlemen among them and the best companies send out men, worthy of courteous treatment. If you trade with the old, reliable houses you may not need to lose much time, with the flock that are crowding our entries, all anxious to "save us money" even at the cost of tying it up in purchases, that we will not need for months to come. Give short hearing to the salesman, who knows more about your business, than you do yourself, as well as to him, who is willing to tell you how much your neighbor has bought. This should be a matter of confidence with him. It has pleased me to hear from non-Catholics among them, that they receive their kindest treatment from Sisters, but I fear that some are kept waiting too long. They are a class of men, deserving of sympathy because of their ceaseless round of applications and frequent refusals.

It is true that merchants, recognizing our honesty, are always willing to give us credit and to sell even in small quantities, but it is also true that they appreciate prompt payments and by purchasing where our trade is established, and just the supply we need, we can hold our bills down; meet our obligations on a reasonable credit and thus create a demand for our patronage. Those of whom we buy are frequently held to a ten days' credit; thirty days is usual and sixty days is considered a very generous limit. We should endeavor to cultivate good business methods. Never argue for a lower price; ask simply: "Is that your lowest price?" If you cannot afford it, yield to force of circumstances and do without it. If one should earn a reputation for "beating down" the cost of things, salesmen are apt to boost the price, so as to admit of a reduction, and the customer pays the actual rate.

Collective Buying

Of late there has been a tendency for several institutions to unite in securing lower prices, by placing the patronage for a group of hospitals, with one or more firms. In this form collective buying seems not to have been found very satisfactory. Even for one community, that may have several hospitals, in different sections of a state, I would not favor it. Such a policy creates a monopoly in favor of particular companies, interferes with the personal liberty of the local superior; it is unfair to local dealers, such as coal firms; wholesale grocers, who are entitled to much consideration; in a word, the tendency to collective buying has not found favor with me.

In recent years there has been a deluge of new firms; we are flooded with attractive catalogs and the mail is laden with circular letters. The West is invading the East and probably the East is pushing westward. As one, who has trodden the familiar path of long established business firms, I would say, "Trust the old-reliable;" do not be too readily drawn by those trumpet calls that promise to save you money. There is little to be gained, by a too eager search for bargains, though it is a rather attractive pursuit for the housekeeper, or the newly appointed bursar whose long list of "wants" cannot be balanced by the amount of "cash on hand."

I feel, dear Sisters, as one who has talked long and said little to the purpose, and if any point has not been clearly defined and needs further elucidation, we may clear it up by familiar discussion, to which you are cordially invited.

AMBULANCE DONATED BY COLLEGE MEN

Picture shows David S. Soden and Father John M. Hilpert of St. John's College, New York, with the new White ambulance, which they donated to Holy Family Hospital. Nurses and interns of the hospital are admiring the new ambulance.

Hospital Progress

EDITORIAL EXECUTIVE COMMITTEE:
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HOSPITAL CHARTS AND INSURANCE COMPANIES

Employers' liability laws have brought a great many (good and bad) insurance companies into contact with doctors. Now it appears that not a few claim agents of these insurance companies are seeking ways and means to enter our hospitals and have access to the records. Some attending doctors seem to think this is all right, and in fact give these companies a permit, signed by the patient involved or some of his family, permitting them to go to the hospital record and apprise themselves of the contents.

The writer does not presume to have a sufficient knowledge of the facts—notably the legal features involved—to intelligently discuss this situation. Rather is an appeal hereby made to someone to discuss (in the pages of this journal) this very important matter.

Just as surely as doctors encourage or permit insurance agency representatives to have access to these records, before long attorneys interested on behalf of the company or disgruntled patients, will also desire and claim this right. Unless we can feel that the hospital record is an intimate graph of what we are doing and accomplishing for the patient; unless we can put into it fearlessly and without thought of meddlesome interference on the part of intruders—either those who totally misunderstand us or may be hostile to us—then we must make our chart a different sort of document. For example, differences in opinion of consultants should be put down fearlessly upon the chart. Who, among claim agents of insurance companies, not to mention their attorneys, is of either a proper mental calibre or temperament to have paraded before them these differences?

The insurance companies should employ upright, ethical physicians, who may always secure for them, through equally ethical confréres (in actual charge of patients involved), all the needful data pertaining to sickness and injury among their clients. The attempt to go to our records in order to get data—often specious and indeterminate—with which to fight their claims, is a preposterous intrusion into the privacy of our record rooms. An invitation is hereby given for someone who has the essential data at hand, to give our hospitals suggestions as to how to meet these requests when they come.—*E. L. T.*

THE LIGHT UNDER THE BUSHEL

"They urge us to keep records in the hospital," said the weary hospital executive, "and we have them kept as best we may. We go to a great deal of trouble to classify and cross index, because the doctors tell us that unless all this scientific material is made available their light will be hidden under a bushel. They cannot write scientific papers, they declare, nor utilize the cases for scientific discovery and progress, unless records are well kept and well classified.

"But even after all that has been done," continued the executive, "their light seems to be still hidden under a bushel. The material is all there, the cases are all in order, the scientific papers are ready to be written and the discoveries ready to be made,—but their light is under a bushel for the simple reason that they will not take the trouble or make the effort to use the material which we have ready for them. We have done our part, but they do not do theirs."

It was not in a Catholic hospital that this complaint was made. Yet, many of the Catholic hospitals can re-echo the statement. The members of the staff, who are competent to utilize for scientific deductions and for the writing of scientific papers the rich material contained in the records, fail to do so, and by this failure they leave under the bushel not only their own personal light, but that of the hospital as well. The modern hospital owes to the public a service of scientific research and medical education, as well as of care for the sick. The materials for this service of research are contained in the records. To utilize them is surely an important duty of the staff.—*E. F. G.*

BEAUTIFY YOUR HOSPITAL

If there is any place in the world where human ingenuity should exert itself to make the work of man appear a little less artificial, a little more like the work of the Creator, that place is the hospital. And yet how many hospitals there are, hospitals whose cost runs into six and seven figures, where there is little attempt made to add the human touch (shall we say the touch of a woman's hand?) to the general symmetry of the designer's plans!

To be sure, in the rooms of Catholic hospitals we find the Crucifix—the symbol of our redemption, the symbol of love, and the symbol of Christianity. Nothing in the way of pictures or decoration can supply for the lack of a Crucifix, but more is needed. Sometimes the walls of wards and rooms are entirely without pictures, or ornamented (?) with only a calendar, possibly one of rather undesirable design.

Sick persons who may not be in condition to read, may certainly be uplifted in mind and soul by the silent, subtle suggestion of good pictures. And when the choice of these is made by the Sisters, only those pictures suggestive of noble thoughts will find place in the hospital. These pictures need not be expensive: many firms are supplying printed or colored photographic copies of masterpieces at a low price. The framing may be done in various popular decorative arts by hospital employees, or by the women's auxiliary. No doubt, in many cities, professional framers would be glad to do the work at a special price to hospitals.

Then there is the matter of draperies or curtains. The very poorest of housekeepers insists upon these for her home. Why should the sick be deprived of this universal home comfort? These again, need not be expensive, but they should be of material easily laundered.

The scientific use of color in decoration is receiving considerable attention in our day. The following color scheme has been worked out for the hospital of the University of Denver: The x-ray room has walls of violet red because of the great light absorbing power of that color. A soft gray is used in the operating room. Yellowish green is used in the wards for disturbed patients because of the quieting and cheerful influence of that color. Yellow is used in rooms with a northern exposure and sunshine gray in the southern rooms.

—*E. W. R.*

ONE ASPECT OF DEEP X-RAY THERAPY

When a new and powerful therapeutic agent is introduced into a hospital, it behooves everyone concerned to take great care that all its qualities, beneficent and dangerous, be known and carefully allowed for. The penetrating powers of the x-rays used in deep therapy are quite extraordinary as the following instances will show.

The careful Sister technician of one of our hospitals is authority for the following relation. She wondered just how far the penetrating rays produced a sensible result. To test them, she put an x-ray film under the table on which the patients reclined and on the film holder placed a key. After some use of the machine, she developed the film and found the image of the key strongly brought out though the film was at a distance of several feet under the stand.

She then went to the room beneath and laid a similar film on the floor with a key atop. Again, when the film was developed, the image of the key was strongly perceptible. Thus the rays used for the deep x-ray therapy had penetrated not only the stand on which the patient reclined but had gone clear through the terrazzo floor and at the distance of some fifteen feet below had fogged the film. The Sister technician promptly had five sheets of lead placed beneath the table and now no appreciable effect of the x-rays can be detected below. They are stopped by the plates of lead. But if this experimentation had not taken place, and if some patient had been put in a bed in the room underneath the machine for deep ray therapy and left there for some time, one can imagine the result.

With a little precaution, all such dangers can readily be detected and averted, but vigilance and alertness are certainly necessary where such powerful forces are let loose in a hospital.—*E. F. G.*

HEALTH EXAMINATIONS OF STUDENT NURSES

A very useful and prudent practice has been instituted in some schools of nursing which should be adopted by all, to-wit: The giving of a careful and thorough physical examination to all the student nurses at stated intervals. The training of the student nurse is a severe discipline and requires sound health to go through it unharmed. These periodic physical examinations often avert disaster as they disclose defects which are hidden and which may break out suddenly under the strain of training and do irreparable harm.

A striking instance of the utility of such examinations and of the surprising conditions they sometimes disclose, was given not long ago in one of our larger hospitals. One of the nurses seemed as excellent a specimen of good health as could be found anywhere. In fact, she had not long before taken the first prize in a state-wide health contest and had been given second place in another contest which was interstate. No one expected that there would be the slightest flaw in her constitution, she herself least of all. Yet, when the x-ray was taken it showed such decided signs of active tuberculosis that it was found necessary to advise her to discontinue her studies. In the x-ray picture, old tuberculous lesions of the lungs were likewise plainly apparent.

Such a discovery made in time renders it possible to take remedial measures and to save the health and perhaps the life of the student nurse. If such a condition were neglected, the strain of training might so weaken the constitution and aggravate the evil, that invalidism or death would result.

Such an instance accentuates also, of course, the advantage to everyone of periodic examinations of this kind. All hospital workers are at times under unusual strains and always need full physical vigor. They owe it to themselves and the patients to take reasonable precautions to maintain the health which spells efficiency and service.—*E. F. G.*

BOOKS, HOSPITALS, AND PUBLIC LIBRARIES

Father Garesché's suggestion, in the form of an editorial, in the October number, pointing out the useful co-operation that might easily be found available between public libraries and those catering to our patients desirous of reading matter, is an extremely timely one.

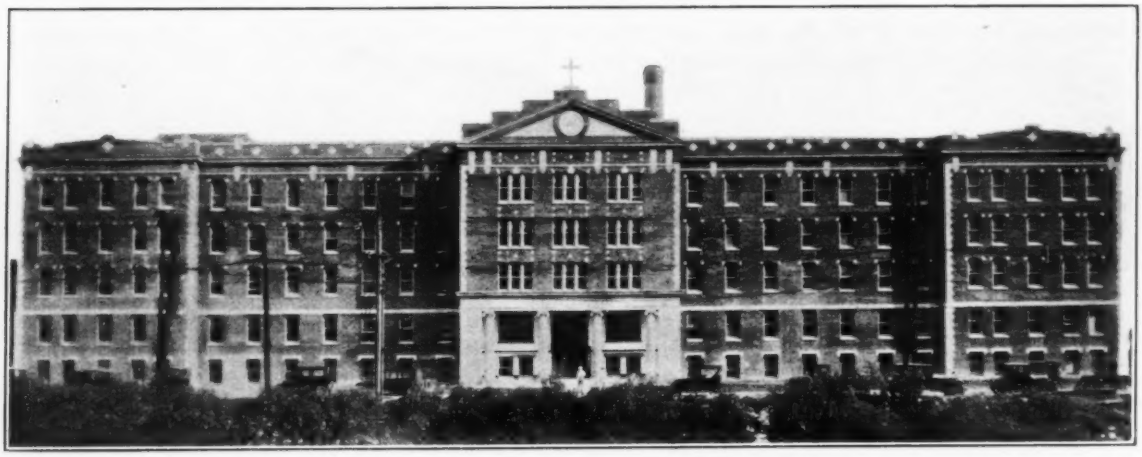
The writer immediately got in touch with the librarian of our particular city, and found that already there has been some use in our hospitals of the available facilities. In this particular instance, however, the librarian thought that the service might be greatly increased and there might possibly be an opportunity for finding out the types of books most suited and useful for different kinds of hospital patients.

Immediately it comes to mind that here is a glorious opportunity for someone with preconceived ideas of what hospital patients *ought to have* for their reading—such reading matter to be foisted upon them by those folks predestined by Fate to know exactly their needs! However, such a catastrophe should be easily obviated. Doctors, as well as nurses, can assist mightily by encouraging those who are equal to it, to the type of reading that will divert them into healthy and normal channels.

Needless to say, where reading is encouraged, proper and effective lighting must be insisted upon.—*E. L. T.*

The New Mercyville Sanitarium

Aurora Illinois



MERCYVILLE SANITARIUM, AURORA, ILL. FRONT VIEW.

TWO miles north of Aurora, situated on a beautiful 165 acre tract of land, the new Mercyville Sanitarium, in charge of the Sisters of Mercy, was dedicated May 30, 1926. The building, 240x121 feet, fully equipped, cost approximately $475,000. Plans were drawn by George E. Morris, Elgin architect, and the Great Lakes Construction Company of Chicago were the general contractors. High ceilings and extensive window space make the rooms extremely bright and cheerful. The sanitarium will specialize in the study and treatment of mental disorders and nervous cases. Dr. Henry J. Gahagan, former superintendent of the Elgin State Hospital, who is thoroughly experienced in therapeutics, is the medical director.

MERCYVILLE SANITARIUM, AURORA, ILL. SUN PARLOR.

The building is absolutely fireproof, being constructed of concrete and brick, with terrazzo floors throughout the building. The basement, well lighted and airy, contains the kitchen, refrigerating rooms, nurses' dining room, clothes room, sewing room, some of the occupational therapy rooms, and two well-arranged departments for hydrotherapeutic treatments, one for men and one for women. More efficient service is derived from the installation of electrical motors in connection with the machinery used in the kitchen and refrigeration departments. On this floor is also located the laboratory for the diagnostic pathological routine work. Being very important items in the treatment of patients, the most modern equipment has been installed in the hydrotherapy and electrotherapy departments.

The main dining room, private dining rooms, two large sun parlors, private rooms, utility and linen rooms, offices, reception rooms, physicians' examination room, and a beautiful large lobby will be found on the next floor. There are three stairways of steel and terrazzo, which extend from the basement to the third floor, and are so located that easy access to any floor may be had. The automatic electric elevator also extends from the basement to the third floor, but the two electric dumb waiters extend from the basement to the second floor only.

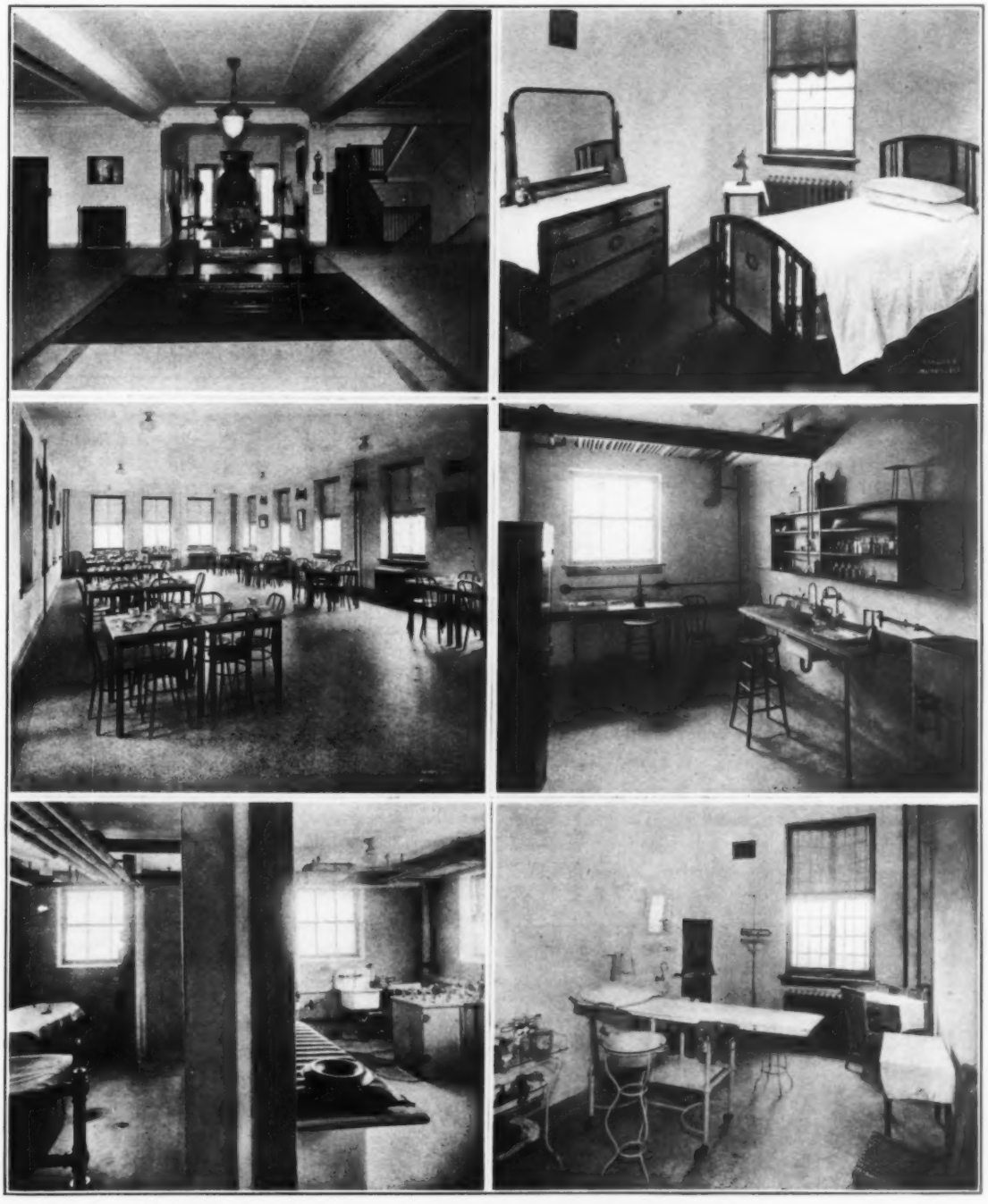
A large lobby and reception room, two large sun parlors, two suites of three rooms, each with bath, eight

MERCYVILLE SANITARIUM, AURORA, ILL. A ROOM IN THE HYDROTHERAPY DEPARTMENT.

private rooms with bath, ten private rooms, three large wards, with necessary baths, and utility rooms and linen closets occupy the next floor. Besides the sun parlors, there are four large airing balconies on the west side of the building. Ventilation for the entire building is secured by an invisible fanning system. The two "fan" rooms, containing machinery and electric motors, are located in the attic.

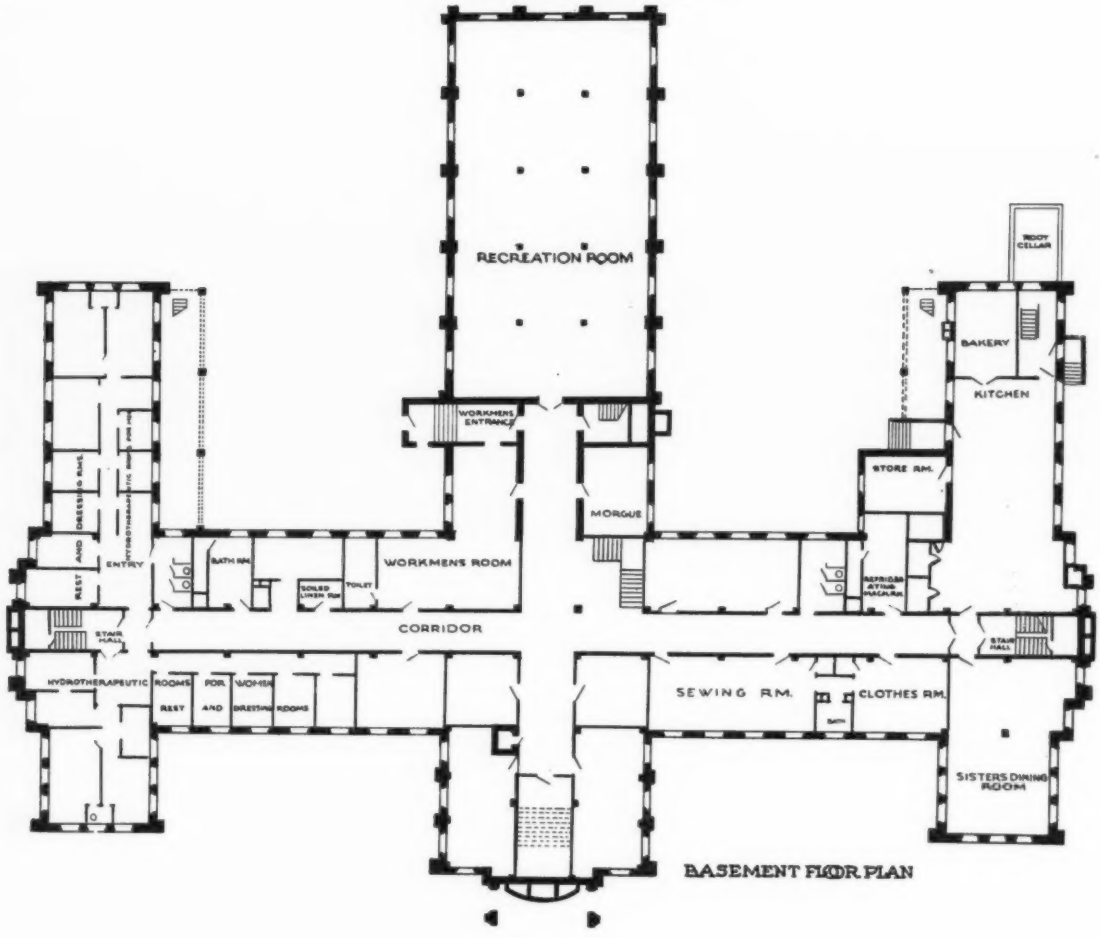
In the center portion of the building are rooms offering desirable accommodations for persons wishing to take the "rest cure."

The entire building is equipped with steel beds, and furnishings except the sun parlors, reception rooms, and offices, where burnished reed or wood is used. The best radio equipment has been installed in the main lobby, in the large dining room, and in the sun parlors.



MERCYVILLE SANITARIUM, AURORA, ILL.

Entrance Lobby.
Dining Room.
Hydrotherapy Department.
Private Room.
Laboratory.
Operating Room.



MERCYVILLE SANITARIUM. Geo. E. Morris, Elgin, Ill., Architect.

The exterior of the building is of variegated red brick, laid in brown mortar, with Bedford stone trimmings, and is of Tudor Gothic design. The green coloring around the windows and door openings, and the beautiful green tile roof give an artistic, pleasing effect.

MERCYVILLE SANITARIUM, AURORA, ILL. OCCUPATIONAL-THERAPY DEPARTMENT, BASKET WEAVING.

In order to give better and more advanced care to the patients, the Sisters of Mercy, in charge of the sanitarium, have secured the most modern conveniences and equipment. As the occupational therapy department is considered an important factor in the curative treatment of nervous diseases, it was given special attention, and will be equipped to teach weaving, fancy needlework, basketry, etc.

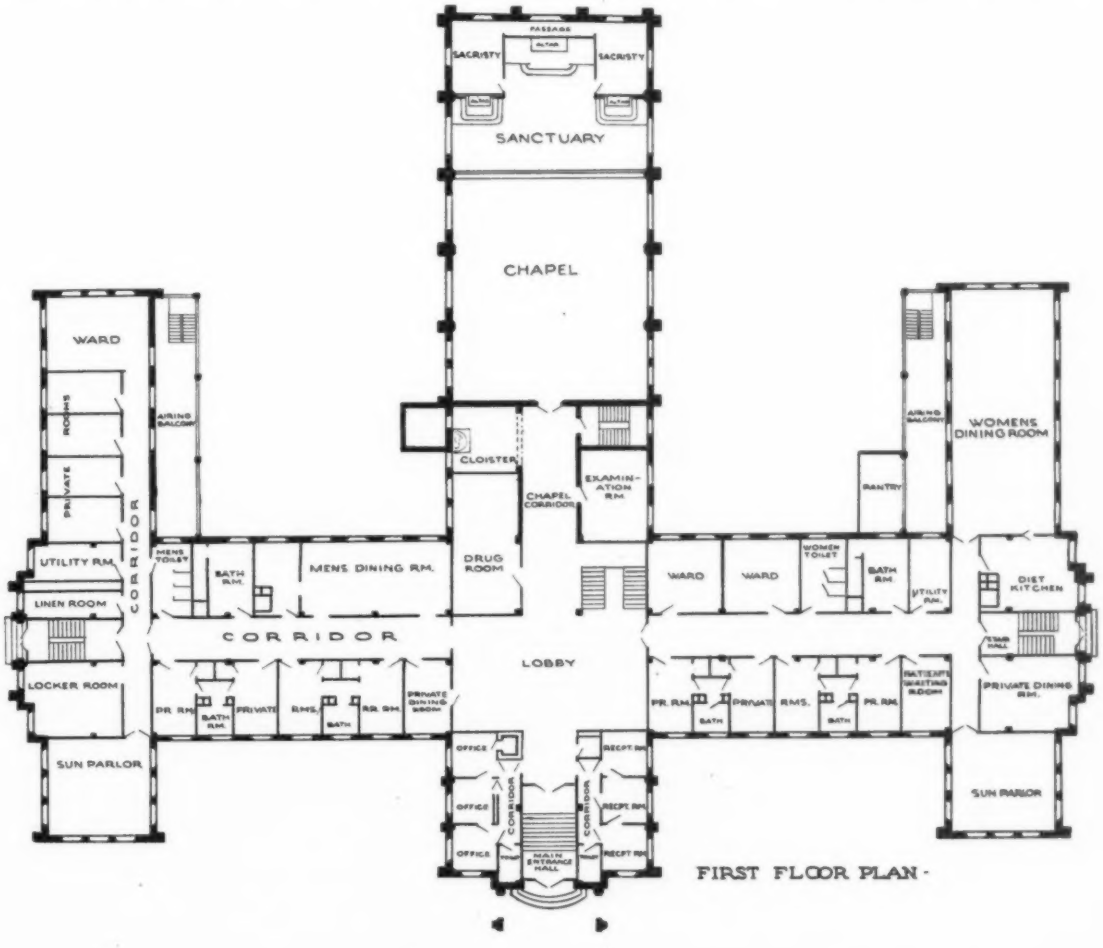
Gardeners have landscaped the grounds, and when everything is completed, the Sisters hope to present to their patients a building that will be homelike and inviting as well as offering every needed institutional feature.

Besides the new building, there is also a large frame and stucco building, with a capacity of 75 beds, which for eleven years has been in operation caring for patients suffering from mental trouble. Mercyville Sanitarium is located in the Fox River Valley, the buildings overlooking the Fox river. There is a beautiful oak woods on the grounds, and the outdoor amusements consist of tennis and croquet.

Dr. H. J. Gahagan, medical director of Mercyville in speaking of the treatment and environment necessary or helpful in curing mental diseases, says:

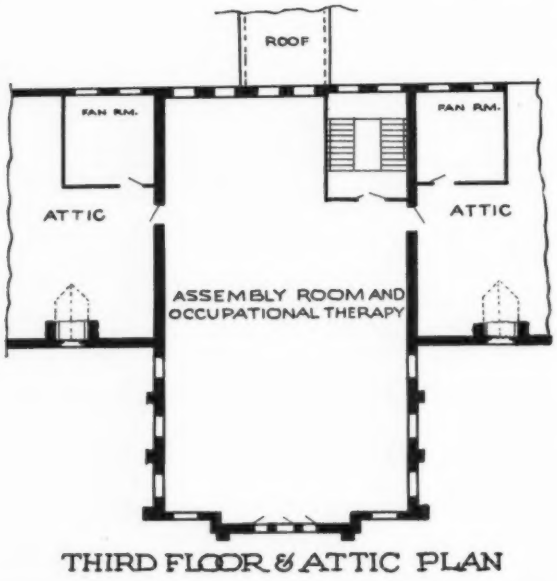
MERCYVILLE SANITARIUM, AURORA, ILL. FRONT AND SIDE VIEW WITH SISTERS AND NURSES.

"The treatment of mental disease consists primarily in diverting the individual from an abnormal attitude toward the public, produced by his or her experiences. These experiences invoke a variety of morbid symptoms in which the individual interprets as being directed to him acts of others which have no reference to him. In other words, his sight, hearing, taste, and feeling tones reflect strange sensations which are called hallu-



FIRST FLOOR PLAN.

MERCYVILLE SANITARIUM. Geo. E. Morris, Elgin, Ill., Architect.



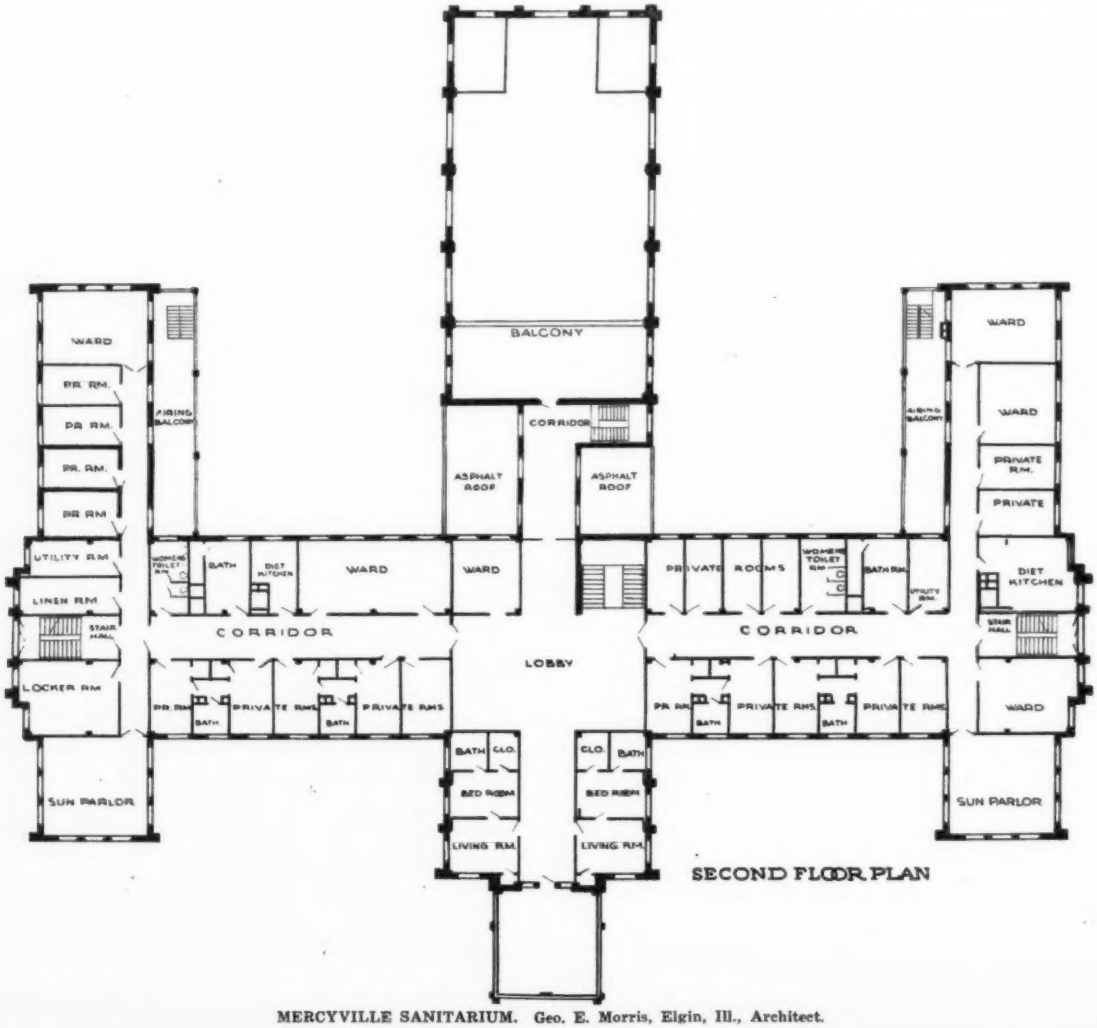
THIRD FLOOR & ATTIC PLAN

MERCYVILLE SANITARIUM. Geo. E. Morris, Elgin, Ill., Architect.

cinations, and these are the basis of the delusions. Loss of interest and attention on the part of the patient is produced which, if not corrected, cause a deterioration, and the individual becomes immersed in his strange ideas, and practically lives within himself.

"Among the means for stimulating the mentally ill to forget their troubles, Occupational Therapy is in the lead. Occupational Therapy consists in teaching the patient how to use his hands, thus stimulating his vision for better things. The methods used alternate the daily routine of work with play, amusement, and calisthenics. The teacher and her aid train their pupils from the habit training group to those completing the finished article. Basketry, leather work, weaving, toy making, brass work, and needle work are the principal lines of occupation.

"We have many forms of mental disease requiring other lines of treatment for which Hydrotherapy is prescribed. This treatment consists of cold, neutral, and hot packs, continuous baths, sprays, massage, shampoo, and various rubs. Many of the organic types where there is an actual invasion of the brain and spinal cord, require special forms of intravenous medication.



SECOND FLOOR PLAN

MERCYVILLE SANITARIUM. Geo. E. Morris, Elgin, Ill., Architect.

"It is essential that home conditions be brought to the patient, and that the surroundings be as cheerful as possible. Eliminate their fears with a smile and a friendly attitude; discuss their troubles with them freely. Spacious grounds for flowers, trees, and shrubbery with tennis and croquet courts and ball grounds are essential for the outdoor treatment.

"Mechanical restraint should not be used, neither should bars be placed on the windows or doors. Every liberty should be granted. Special attention to diet with meals served to groups selected with a view to cordiality should be encouraged. Music accompanying the feast is anticipated and enjoyed by all."

Infant Feeding

T. W. Berthold, M.D., Blue Island Hospital, Blue Island, Ill.

THE feeding of infants has become at the present day a special department of medicine, and the artificial feedings of infants, especially, must be conceded to realms of pathology. The axiom, that the whole is greater than any of its parts, as applied to the care of the child in its first year of life has changed the front of attack of many of the ailments of this period. We treat the infant as a whole, rather than try to correct some isolated symptoms, as vomiting, stools, and the like.

Naturally the subject falls into two main divisions, breast feeding and artificial feeding. The former needs no eulogy, but rather a greater determination to place and keep all possible infants at the breast. The latter needs a thorough understanding of the means at our command. Roughly speaking, the breast fed baby has ten chances in its favor to one of the artificially fed baby. One-half of all deaths during the first year of life are due to disturbances of nutrition. It is very satisfying to note that in recent years great strides have been made in all directions of this field. More children are receiving the benefits of mother's milk and the others are benefited by a better understanding of the artificial administration of food.

Breast Feeding

With rare exceptions, all children can tolerate mother's milk. There appear four main reasons, or factors, which make breast feeding possible: 1. The will of the mother. 2. The anatomy or physiology of the breast and nipples. 3. The ability of the child to nurse. 4. The ability of the child to tolerate mother's milk.

1. It is the duty of the physician to impress upon the expectant mother the necessity of nursing her child. He should use all his wiliness and diplomacy to overcome her unwillingness on account of supposed social reasons, to assure the neurotic and fearful one of her ability to perform this function, to direct her life and hygiene, mentally, as well as physically, to the fulfillment of this important duty.

2. He must carefully weigh the facts involved upon which hinge her ability to nurse successfully such as the following: a. Inverted or small nipples. With careful management before birth and after with massages, shields, sucking apparatus, expression, the infant need not be deprived of the breast. b. Cracked nipples are no contraindication, unless infected. Prophylactic care with alcohol and massage and immediate attention upon diagnosis with possible rest for a day or so will prove satisfactory here. c. Mastitis is contraindicative only for the breast involved. d. Acute infections are indications for removal temporarily. e. Tuberculosis in the acute form is an absolute contraindication for nursing. In chronic or bone forms, the physician must exercise his judgment. f. Menstruation is not a contraindication, although the baby does not seem to do as well. This is due to the lack of food, rather than to any toxins in the milk. Pregnancy does not seem to interfere with lactation until the mother becomes aware of the fact, then the shock acts upon the secretions, drying them up. g. Insanity, epilepsy and the severer nervous disorders are contraindications. In general, the fat, overfed, mothers are more troublesome than the small, thin type.

3. The factors which influence the child's nursing ability may be named as: a. Prematurity. Here manual expression and feeding with means suitable to the child's strength must be employed; later it can be put to the breast directly only if the breast has been successfully emptied at each nursing and retains activity. b. Cleft palate and hairlip. Here the child should be permitted to nurse in short laps, permitting time for breathing in between. The nostril may be plugged with cotton to insure suction. The repair of this condition should be attempted as early as the end of the first month. c. Birth injuries, systemic abnormalities.

4. The gastro-intestinal disturbances from intolerance of the breast milk are due either to faulty composition (which occurs very seldom), insufficient quantity, or some idiosyncrasy against a normal constituent, such as fat, or sugar, or protein. The gastro-intestinal disturbances of the breast fed baby are practically the same as those of the artificially fed baby and will be briefly mentioned here as Finkelstein's classification: a. Weight disturbance. b. Dyspepsia. c. Decomposition. d. Intoxication. The first and second are really the only ones in breast fed babies. The technique of breast feeding need not detain us long here. In brief, it is held best to place the child to the breast on the second day, as the baby sleeps all the time of the first and the mother needs the rest also. The first secretion, or colostrum, is high in fat content, particularly the colostrum cells, or fat corpuscles. What the physiological function of colostrum is, is still a speculation, numerous functions having been attributed to it. Four hour feeding seems to give best results with one night feeding up to the fourth or fifth week, although three and even two hour intervals may be indicated for small babies or for other causes.

The best stimulant for breast secretion is complete regular emptying of the breast at each feeding. Most authorities advise one breast at a time. If for some cause the breasts are not emptied at each feeding by the infant, it should be done manually. This may have to be done also after one or the other feeding, daily, as not all children take an equal amount at each nursing, then, too, the breast secretes more at one feeding than at another, depending upon the rested condition of the mother as a rule. Also the consistency of the milk varies with different nursing, so that a chemical test for milk is only of value if the specimen is obtained from a pooled specimen of 24 hours secretion. Fresh air, good food, happy frame of mind, plenty of rest, sunshine, exercise, but not to the point of fatigue, are essentials to proper nursing.

The time of nursing varies with individual babies, and is from five to twenty minutes. The first milk, or the first five minutes of milk contains a higher per cent of protein and sugar, the remainder is mainly fat.

Vomiting and eructation occur oftener in breast fed children than in artificially fed ones and are no contra-

indications to nursing. It is well to place the infant over the shoulder in an upright position after feeding to permit the escape of swallowed air, insuring better rest and digestion. No bottle of liquid should be given one hour before nursing. No complementary feeding should be given under two months. No supplementary feeding should be given under six months.

If a baby fails to gain weight, careful weighing before and after nursing will determine how much milk it is getting. An occasional drink of boiled water is all the child needs for three months, as mother's milk is 80 per cent water. It is of the greatest importance to accustom the baby early to bottle, spoon, and glass, for this will make necessary or emergency changes of feeding much easier. At the third month, one teaspoon of diluted orange juice should be added each week. At six to seven months, a cereal diluent, either with milk or meat stock, should replace the noon feeding. At eight months, a well cooked and finely mashed vegetable should be added.

Weaning

Nine months is enough for any child to nurse; after this time if sufficient quantities of other foods are not added, the child will be disposed to rickets and other dietary disturbances. The technique is an individual procedure, determined by the character, training, and disposition of the baby. It may be necessary, in obstinate cases, to terminate breast feeding abruptly and wait until the child is ready to accept what is being given. No harm results from this procedure. It is my belief that at this time cod-liver oil should be given to every baby, as often the best fed and best nourished child will become flabby and pale until it can adjust itself to the new diet. At eleven months, the diet should consist of vegetables, as greens, spinach, carrots, beans, peas, baked potatoes, soup broths, swieback, cereals, and milk.

Some apparently well-fed, well-nourished, normally-gaining babies, exhibit symptoms which in themselves cause no damage, other than to upset the peace of the mother, and cause discomfort; these are principally colic, regurgitation, vomiting, eczema, etc.

The pathology of colic is not well understood, it being probably a vasomotor disturbance of several origins—neurotic, too much feeding, too much sugar or fat, underfeeding, irregular and too frequent feeding, being probably the main causes. The neurotic kind, combined with one of the others, occurs almost with clock-like regularity during some time of the day, and is most common in the evening, or at night. The diagnosis here is simple and need not be enlarged upon, but often the hungry, crying, or irritable, underfed, or too frequently, overfed baby are mistaken for the same. Too much relative fat is the commonest cause. By taking the baby away from the breast after it has nursed from three to five minutes, the fat is eliminated, or, also, by giving the top off both breasts, or lessening the feeding intervals, these symptoms often disappear. This holds good for eczema, vomiting, and severe eructation. Also by substituting for one or two daily feedings the thick cereal mixture, which will be described later, the same result may be obtained.

In eczema other than the exudative diathesis type, too much fat is the commonest cause, although sugar or protein may produce the same effect. This has been called the fourteen weeks' rash because it usually clears up from the third to the fourth month.

In all these symptoms hygiene must receive careful attention—fresh air, sunshine, not too much clothing or overheating, cleanliness in bathing and diapers.

Substances Secreted in the Milk

Careful research has shown that some drugs and other substances are secreted with mother's milk, namely, antipyrin, phenacetin, arsenic, iodine, cathartics, bacteria (in systemic infections), diphtheria toxin and antitoxin. Also, we have reasons to believe that a great many of the other immune antibodies established in the mother are passed to the nursing infant, for at least the early part of its existence. But for the majority of substances which are held in high esteem as trouble makers, such as certain foods, menstrual toxins, etc., we have no proof whatsoever that they appear in the milk.

Artificial Feeding

If children can be made ill and die from improper artificial feeding, artificial feeding is pathogenic and belongs to the realms of pathology. It is well to review first what we want to accomplish and a few of the facts we have to deal with.

The normal child should double its weight in six months and triple its weight in one year. But of greater importance than this is the mode of gain, appearance and action, firm flesh and vigor of the baby. The way of the overfed, flabby and pale baby, as well as that of the underfed, thin and weak one, is truly hard. They are open to respiratory and other infections, rickets, convulsions and many other disorders. The baby's caloric needs, in comparison with the adult's needs, are out of all proportion to its size.

A baby's stomach differs mainly from the adult's stomach, in that it has a very patulous pylorus and for that reason it can take a greater quantity of liquid than the actual capacity of the stomach, as the liquid readily passes out of the stomach into the intestines, leaving the solid residue behind. The ideal food for the baby would be one which approaches mother's milk, but up to the present time we are still far from this goal. Therefore, it is well that we have a thorough understanding of the things which we attempt to give, to assure proper and intelligent modification.

The activities of the proprietary baby food manufacturers have made it easy for many physicians and mothers to feed their babies according to ready made charts, but too often only to the baby's detriment. The only thing that can be said for their use, if used at all, is that they can be handled as milk modifiers. Cow's milk being the next best and practical thing, we think it is well that we compare it to mother's milk first and see wherein it is lacking as a food in itself, and what its dangers are:

	Human	Cow's
Fat	4.0%	4.0%
Sugar	7.0%	4.5%
Protein	1.5%	3.5%
Salts	0.2%	0.75%
Water	87.0%	87.0%
Reaction	Acid	Neutral or alkaline

The main difference then lies in the fact that cow's milk not only contains from two to three times as much protein, but also that these proteins are in the non-soluble form against the soluble albumins in mother's milk. The greatest difficulty we have to eliminate is the formation of the hard, indigestible, toxin-producing, and irritating curd in the alimentary canal. Fat is chemically the same, yet it is not tolerated as well and is not absorbed as readily as the fat in mother's milk. Sugar is only slightly deficient and does not vary in quality. Salts are poor in iron and rich in calcium compared with mother's milk.

In order then to approximate the cow's milk to mother's milk we must change it by a. Reducing and rendering the protein harmless by dilution of the quantity of milk and by boiling it, or adding some other substance, such as sodium citrate, to make the curd digestible. b. Adding sugar, up to three, or not more than six per cent to the day's feeding. Milk or cane sugar may be used. c. The salts are reduced in the dilution. d. Fat is reduced by dilution and caloric value restored by adding cereals such as oatmeal, barley, or corn and soy beans.

Basis for Feeding Composition

What then is the basis for a feeding composition? While the caloric estimations and calculations are very impractical and do not fulfill the needs of the physician in every day practice, it is well to understand them as they are a valuable guide to the basic needs of the infant.

The "Energy Quotient" is the unit commonly used in this respect and represents the baby's needs in calories per kilo, or pound, of body weight at a given time. This varies from 45 at birth to 36 at six to eight months and slightly less thereafter with a minimum of 32. Assuming then that a baby needs a minimum of about 45 calories per pound a few days after birth and knowing the caloric equivalents of our food constituents, we can arrive at a basic formula, so that later we can disregard the energy quotient and be guided by certain rules. The caloric value for milk is 21 per ounce; barley water, 2; sugar, 120. The quantity taken per day is roughly calculated as the number of months plus two times the number of feedings per day. So that a baby of four months getting five feedings a day will take four plus two, times five, or 30 ounces of feeding. If it weighs ten pounds, it will require 40 to 43 calories per pound or about 430 per day. Subtracting 120 calories for one ounce of sugar and diluent, the latter being only about two calories per ounce, we need about 310 calories a day of milk. At 21 calories per ounce, this would equal about 14 to 15 ounces of milk per day, or a minimum of one and one-half ounces per pound of body weight.

Now we have the rules for our formula: A minimum of one and one-half ounces of milk per pound; total amount of feeding, age in months plus two times number of daily feedings, three per cent sugar; and the rest diluent. Again, for a baby 5 months old weighing 12 pounds: Five feedings a day. Amount of 24 hour feeding five plus two, times five equals 35 ounces; "E. Q." at 45 times 12 equals 520 calories needed.

Sugar 3%	9 dr. at 15 calories	= 120
Diluent from 14 to 16 oz.	16 oz. at 2 calories	= 32
Milk	18 oz. at 21 calories	= 378
		530

Preparations of Feedings

It is best to prepare a 24 hour feeding at one time and direction for diluent is not needed here. As stated before it is necessary to prepare the protein for digestibility by boiling the milk for one minute or letting it well up three times in succession. Some authorities, Brenneman and others, find that sodium citrate in 20 gr. doses is very effective in destroying curd. The mixture is then placed in ice box to cool.

Bottles

It is best to have one more bottle than the number of feedings a day. The medium sized neck bottle is recommended the most. These should be washed with soap and water and brush, rinsed in cold and hot water and then boiled for 15 minutes and placed in boric solution in a covered receptacle. The nipples should be treated similarly, their openings should be so that when a full bottle is inverted, it will drip about 1 drop a second. At feeding time the required amount of the mixture is placed in the bottle and then placed in a pan of warm water, or placed on the stove in pan and brought to the desired temperature.

When a baby is fed artificially from the beginning, it is not well to begin feeding till the third day, and then in very small amounts and in minimal mixtures, carefully watching its tolerance for the food clinically. Four hour feedings with one night feeding are by far the most effective in most cases. This baby also needs more water than the breast fed baby. Sugar should not be taken from the 24 hour allowance to sweeten the water; saccharine, if sweetening is necessary, should be used. Careful weighing is of the greatest importance to note the effect of the mixture and the baby's gain or loss. Orange juice is started relatively early, about the second month and run up from one teaspoonful a week to the juice of the whole orange daily at six months. Cod liver oil, with or without phosphorus, should be added in about the same manner at the fourth to fifth month. Solid food and cereals should be started relatively early too. It must be constantly remembered that the baby's gain in weight and progressive age constantly requires changes of formula, to supply the additional calories necessary. This is done best by increasing the milk and sugar at the expense of the diluent, as higher concentrations are more readily borne with increasing age. Thus, a baby of eight months need not take ten ounces of liquid five times a day, but can get the same amount of nourishment in six and eight ounces by reducing the diluent and figuring three per cent sugar on the 30 or 40 ounce basis, so that at ten months or even earlier the baby will tolerate whole undiluted cow's milk without sweetening, according to basic formula. The child should at no time receive more than a quart of whole milk.

Gastro-intestinal Disturbances

These disturbances are due mainly to three causes: 1. Overfeeding. 2. Underfeeding. 3. Intolerance. Czerny based his classification chiefly upon intolerance to certain constituents as follows: 1. Milchnaehrschaden or fat disturbance. 2. Zuckernaehrschaden or sugar disturbance. 3. Mehlnaehrschaden or starch disturbance. He attempted to explain all disturbances under this classification, even if he had to use a good deal of manipulation to do so. Van Pirquet attempted to explain all causes by relative intolerance to the amount of feeding. Finkelstein has given us the best workable basis and his classification is as follows:

1. Weight disturbance, comparable to fatty disturbance of Czerny.
2. Dyspepsia, comparable to fatty diarrhea, sugar disturbance and duodenal indigestion.
3. Decomposition or Trypsin to Marasmus, atrophy, malnutrition.
4. Intoxication to summer diarrhea, ileo-colitis, cholera infantum, toxicosis, infection, dysentery.

Weight Disturbance

Etiology: Too much milk (fat) in relative amount or occasionally too low. Symptoms: Failure to gain weight, pallor, fretfulness, constipation, hard, white, often bloody, stools, foul odor, soap stools, ammoniacal urine, distensions, enlargements of peripheral lymph glands. Complications and Sequellae: Chronic atony of bowel and intractable obstipation. Treatment: Reduce fat in relative amount, adding or replacing by gruels and cereal diluents; clears up readily.

Dyspepsia

Etiology and Definition: A food disturbance due to overfeeding of one or more food constituents, or an intolerance caused by over heating, as too much clothing or summer heat. Symptoms and Diagnosis: Acute onset temperature, diarrhea, vomiting often with convulsions. Must be differentiated from otitis, tuberculosis, syphilis, and infections. Treatment: Reduce feeding for 24 hours by replacing feeding with gruels, cereal diluents, one-half strength skimmed milk. Add to formula gradually day by day the various constituents until tolerance for the offending constituent is again re-established. Breast milk here if obtainable is the best treatment after 24 hours semi-fast.

Decomposition (Marasmus, Malnutrition, Atrophy)

Definition and Etiology: A chronic state of under nourishment or malnutrition due to inability to assimilate food, occurring under three months, following several attacks of dyspepsia (mostly from too high sugar content as in condensed milk) and occurring mostly in the

winter months. Symptoms and Diagnosis: Hunger drawn faces, loss of vigor and weight, vomiting, distension, gnawing of fingers, subnormal temperatures as low as 95° F. Treatment: This is very difficult; a large number of cases will not respond at all. Prophylaxis is the most obvious treatment. The lowered food tolerance presents a sometimes unsurmountable food paradox, viz., the problem of raising the tolerance of food to the level sufficiently high to sustain life or gradually raising the food quality to a point most necessary without causing gastro-intestinal disturbance. Breast milk in minimal quantities or diluted is the best medium of treatment. Buttermilk, not the ordinary dairy variety, but carefully prepared by formula, is good, or reducing fat and sugar by using skim milk, one ounce per pound, sweetened with saccharine and gradually adding whole milk and small amounts of sugar under careful clinical control, immediately reducing again as soon as the slightest symptoms of disturbance occur. The butter-flour mixture of Czerny-Kleinschmidt which will be discussed later has been used with success. Eiweiss milk or albumen milk, in the fat, sugar, or starch disturbances. Careful regard for hygienic measures as clothing, bathing, temperature, cleanliness of food, must be observed. Rest is of the greatest importance; no useless handling should be permitted. Sunshine or ultra-violet irradiations on different parts of the body from ten to twenty minutes daily are of great importance; the former should be done in the open to get the full potency of the sun's rays and in addition fresh air. Collapse demands quick action and only here are drugs permitted; strychnin, camphor, caffein hypodermically must be administered without delay. Hospitalization is the best procedure.

Intoxication

(Summer diarrhea, ileo-colitis, cholera infantum, toxicosis, infectious diarrhea, dysentery.)

Definition and Symptoms. Acute sudden collapse, high fever, severe diarrhea but no blood in stools, often prolapse of rectum in short time, rapid pauseless breathing, hot dry skin, lactosuria, albuminuria, nephritis, casts, loss of body fluids, decomposition of mucous membranes of intestines, enlarged liver, convulsions, indicanuria, fatal collapse, and often complicated with pneumonia and often followed by decomposition (marasmus). Occurs mostly in summer. Etiology: Predisposing: Former disturbance of weight, repeated attacks of dyspepsia, heat, either summer or dressing too warm or both, poor hygiene, or intolerance. Active: Improper elimination of unassimilated food, irritation of mucous membranes of intestines by decomposing food, and later invasion of bacteria into these lesions. Treatment: Quick and positive reaction follows treatment here. Withdrawal of all foods for 24 hours, forcing liquids, by mouth, rectum and subcutaneously in glucose and salt solution. After 24 hours increase foods, beginning with fat-free cereal solutions, skim milk, one-half strength, adding sugar slowly and later meat juices and finely crushed and well cooked vegetables.

Metabolic Disturbances

Among these we must mention scurvy, rickets, and eczema. This paper is not the place to discuss them very freely but only to mention the most important points, in etiology and treatments.

Scurvy

While scurvy is not wholly due to faulty food, yet this does play an important part in etiology. It is not uncommon under the age of two, although not often seen in this country except in the immigrant classes. Too long boiling of milk, overpasteurization and sterilization, without adequate addition of proper vitamins is the main cause we are interested in here. Orange juice is the anti-scorbutic food of choice, tomatoes and some of the other subacid fruits contain anti-scorbutic vitamins. Raw cow's milk and other raw foods also show the same therapeutic effect.

Rickets

Inability to retain calcium salts is also the fundamental cause of rickets. Here, too, oversterilization and overheating and particularly the condensed and evaporated milks of the proprietary market cause inability to retain these salts, including phosphorus. Here, too, raw foods, sunshine, irradiated foods, and addition of anti-rachitic vitamin as contained in cod liver oil are necessary. Early administration of the leafy vegetables and beans, greens, and spinach are of the utmost necessity.

Eczema

Here, again, while this is not wholly a food disturbance, the treatment and prophylaxis rest to a large extent with the food. Sensitization against certain foods, as protein fat, or specific foods as eggs, must be carefully watched at the first administration and their effects noted. The general constitutional outlook here, rather than some minor troublesome symptoms, is of the greatest importance. Is the child which has a slight eczema of the face, or colic, gaining? Has it vitality? Has it firm flesh? These helps are of greater value than the withdrawal of foods which will tend to endanger its general well being.

Raw Milk versus Boiled Milk

The literature seems to indicate that the age long struggle of raw milk versus boiled milk has pretty generally resulted in the acceptance of the latter. Recent experiments on the mineral metabolism of animals fed on raw and boiled milk carried out by Daniels and Steans and at the University of Iowa seem to indicate that the time of heating is the important factor. Rats fed on milk which had been treated with the long heat method, such as condensed and evaporated milk, and pasteurized by the old method, did not gain with milk sterilized normally. Those fed by quick heating regardless of temperature grew normally. The same was tried out on babies with Holstein milk and with anti-neuritic and anti-scorbutic vitamins added, with the same result. Calcium determinations showed that the long heated milks seem to destroy the calcium retaining faculties of the infant, producing rickets. The general conclusions were that heating and the temperature to which the milk was heated had no effect on it, but that the time of heating had an effect upon normal growth retardation in proportion to the time heated.

In general, the reasons for heating milk are as follows: 1. Sterilization. Milk for adults can be pasteurized in bulk, but individual bottle sterilization is necessary for infants. Also the milk must be boiled again before use. Although the sterilization by pasteurization kills the majority of pathogenic bacteria, it does not affect the spores which break out in the following eight to twenty-four hours. Repeated boiling causes no change in the quality of the milk for feeding purposes, but insures proper sterilization. 2. Curd. Investigations by Brenneman and simultaneously by some of the European workers showed that by boiling, the curd of cow's milk was destroyed to the greatest extent, less curdy and indigestible masses being passed in the stools, and that babies which had severe digestive disturbances with raw cow's milk immediately improved when the milk was boiled. 3. The volatile, fatty acids which are irritating in the raw cow's milk and caused digestive disturbances were made soluble by boiling. While boiled mother's milk has been fed to sick babies, with prompt relief of symptoms, certain disadvantages do attend boiling milk, which on the whole, however, are not nearly as injurious as they were formerly thought to be. Some of

these can be provided for by additions to the diet. A few of the disadvantages are: Boiled milk is subject to decomposition, raw milk is not. Boiled milk has an unpleasant flat taste. Some of the vitamins and anti-toxins are destroyed on too long heating, antiseptic properties are lost. Hydrogen sulphide is demonstrable in boiled milk if boiled for five minutes. Carbon dioxide and oxygen and some other gases are expelled from milk. Some lactose is caramelized. Destruction of some of the minerals, as calcium, by boiling is in direct proportion to the time of heating rather than to the degree of heat.

Raw milk can be used with advantage in children who tolerate it, if it comes up to the standards of the "certified milk" of the milk commission. It must be: 1. Handled with utmost cleanliness, asepsis, and anti-sepsis, from time of milking to time of consumption. Stables, cows, udders, bottles, etc. 2. Rapidly cooled and set on ice from time of milking to consumption, to prevent growth of bacteria. 3. Immediately delivered, in order to shorten the time from milking to consumption as much as possible. 4. Obtained from healthy, clean-fed, non-tubercular cows. Even then it is best to bring it to a quick boil to insure its absolute sterility.

Proprietary Baby Foods

Baby foods fall into two classes, those which are advertised as a complete food in themselves and need no milk and those which are to be used with milk or in addition to it. Among the former class are the evaporated milks, condensed, malted milk and Nestle's Food. The condensed milks are evaporated to one-fourth their volume and 40 per cent cane sugar is added. The latter is evaporated to dryness and dextrinized starches or malt flours are added. Malted milk is mainly malt sugar. They are all deficient in fat and fresh animal protein and vitamins. Many infants who do not tolerate fresh milk will thrive for a while on these foods and the danger lies in the fact that because they are doing well for a while, the mother cannot understand why the food will not be good for all times and continues its use too long, initiating rickets and scurvy and intestinal disturbances.

In the second class belong Mead's Dextrimaltose, Horlick's Malted Milk and Mellen's Food. Mead's Dextrimaltose contains less malt sugar than the other two and is, therefore, less laxative, malt sugar having a more laxative effect than other sugars. Their caloric value is a little less than sugar, and is rated at about 110 calories per ounce. The farinaceous foods, such as Ridge's Food and Robinson's Patent Barley, Imperial Granum, etc., are mainly unchanged starches, 75 per cent, and their continued use as addition or diluent in mixtures are rather a help than a disadvantage. Nevertheless flour balls serve a better purpose than any of these three with addition of the desired sugar, and is much fresher although a little more troublesome to prepare. Eskay's Food is 68 per cent dextrines, dextrose lactose, 21 per cent starch, and has in addition egg albumin. As the foods in the second class are to be used with fresh milk, there is not the objection to them that there is to those in the first class. On the whole, baby foods, except in exceptional cases, are not necessary, are expensive, are regulated by directions on bottle or physician's card rather than by baby's needs, are apt to be used too long, if they agree for a short while. Their claims to special virtues in this or that respect are often questionable.

Scientific Milk Modifications and Substitutes

As described it will become necessary in the feeding of pathological and difficult cases, to use modified feedings such as flour ball, buttermilk, protein milk (Eiweiss milk) whey milk, salt free milk, and Chymogen, etc. The home preparation of these is cumbersome and often too difficult

GRADUATING CLASS, 1926, ST. ANTHONY'S HOSPITAL, LOUISVILLE, KY.

and must be left to more experienced hands. Many of these can be obtained through the standard therapeutic houses, for example Hoos' Albumin Milk, Armour's Chymogen, flour ball, and others.

Recent Additions

Among the recent additions to the feeding lists, particularly since the war, three seem to stand out:

Czerny-Kleinschmidt butter flour mixture. Where milk was unobtainable and especially in European countries where milk as a rule contained less than two per cent fat and cream, and could not be tolerated well by infants this latter mixture has found great favor; also where fresh milk was not tolerated well.

Seven grams of butter, seven grams of flour to 100 c.c. of boiled water. Or, the Grame Mitchell modification; two and one-half tablespoons of butter heated slowly over the fire, two and one-half tablespoons of flour added, sugar, one and one-half tablespoons, ten ounces water. This mixture has a caloric value a little better than milk or about 26 calories per ounce.

Acidified Milk

That the protein of cow's milk is not as soluble as that of mother's milk and that cow's milk has a neutral or alkaline reaction against the acid reaction in mother's milk has been shown; therefore, the former, containing acid combining with most of the free Hcl of the baby's stomach, leaving very little free Hcl has given rise to some symptoms as atony, hyptonus, slow emptying time, anorexiam, and distress. The addition of one dram of USP lactic acid to one pint of milk seems to overcome this low acidity and increases the tonus, empties the stomach more rapidly, and stimulates bile. Buttermilk is also rich in acid.

Thick Gruel Feedings

When concentrated feeding is necessary and large quantities of liquid cannot be tolerated, the thick gruel feeding has shown some very satisfactory results. Abt, Gerstley, Finkelstein and others praise it very highly and are using it more extensively in cases of pyloro-spasm, pyloric stenosis, breast milk intolerance or idiosyncrasies like colic, vomiting, eczema, and in prematurity, and acute fevers. The formula for preparation is very simple: 1 dram of farina, five to six ounces of skim milk, 1 dram cane sugar—equals about 24 calories to the ounce. Cook

30 ounces of mixture 30 to 60 minutes until it is so thick that it will readily stick to the inverted spoon. The danger attending this feeding is mainly mechanical and it must be carefully watched in asphyxia and aspiration.

Sugars

A very clear conception cannot be gained from the literature as to the relative value of the different sugars. Cane sugar seems to rank highest for record tolerance some think, while others say it is more irritating than any of the others. Malt sugar is the most laxative but seems a little impractical to obtain. Milk sugar seems to have no disadvantages except in some cases of idiosyncrasy. My impression is that they are about alike in food values; all must be kept at about three per cent to no more than six per cent of the 24 hours' feeding per volume.

Drugs, Cathartics, and Stools

In order to round out this subject I believe it will be well to say a few words about these three things. As a rule neither of the first two have a place in the baby's life during its first year. Atropine in spastic condition of the pylorus has not been found very useful. Stimulants in collapse, weak tea during starvation period of intoxication, are useful. Narcotics for coughs and colds, as well as opium for colic, are to be used very cautiously, if at all. Cathartics, especially castor oil, should find no place at all. Correction of stools is to be obtained by correction of diet. Glycerine suppositories and warm glycerine enemas are recommended in colic, the latter given by gravity method, using the barrel of a 15 or 30 c.c. syringe attached to a catheter, and pouring the liquid in slowly, permitting gas to escape freely through the liquid. This same method can be used to wash the stomach in pyloric spasm, vomiting and eructations using soda bicarbonate in the water.

The modern pediatrician does not pay as much attention to stools, as individual symptoms, as his predecessor of yesterday did. The salve-like, homogeneous, gold-yellow aromatic stool of the normal breast fed baby is well known to all, but must not be expected from the normal, healthy artificially fed baby, in fact it would be pathologic. Constipation in breast fed babies occurs seldom, but in artificially fed babies it is common. Too much fat in milk produces a grayish foul stool and is often passed with difficulty and a little blood. The soapy stool in fat diarrhea is characteristic. The fat free stool is brown in color like hard vaseline. Sugars impart a dark brown color and are laxative, curds in stools show protein indigestion, indicating, if too irritating, a softening of the milk by addition of sodium citrate or the boiling of milk. Starch is more constipating if well tolerated, but imparts the same color as sugar. The hunger stool of the starving baby which is fed only tea or cereal water is dark green, slimy, and transparent, soft and mushy and as a rule causes unnecessarily the greatest alarm, and harmful changes in diet are often made because of this. The bottle fed baby's stool is formed and approaches that of the adult earlier than that of the breast fed baby.

The National Tuberculosis Association is now conducting its Nineteenth Annual Sale of Christmas Seals. Through organized work the death rate from Tuberculosis has been cut from 200 to less than 90 per 100,000 people.

AN IMPROVEMENT IN THE ORDINARY BLOOD COUNTING APPARATUS

S. E. Owen, St. Louis University School of Medicine, St. Louis, Mo.

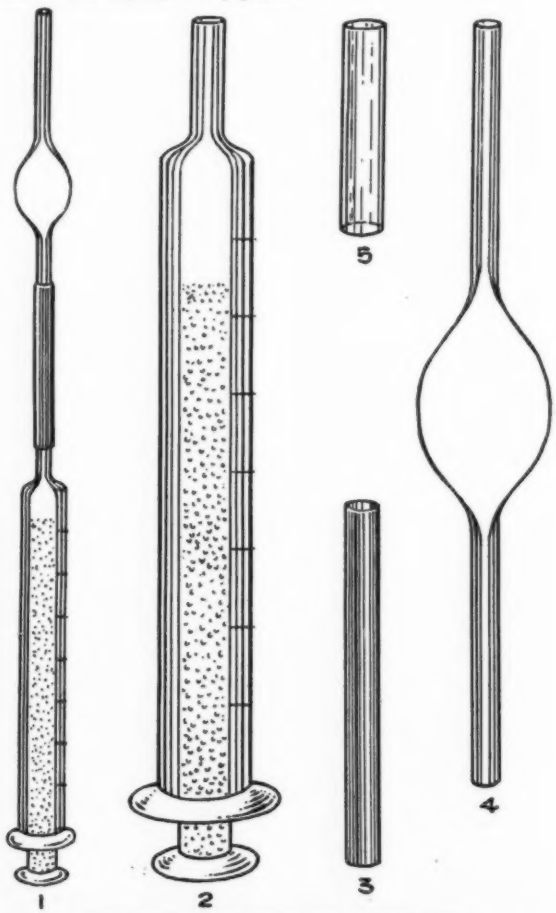
TO minimize the chance for error in the regular hemacytometer which is furnished with a flexible rubber tube and suction mouthpiece, the practical idea as sketched here will be found very useful.

In the sketch No. 5 is a short piece of glass tubing of large enough bore to fit over the end of the hemacytometer and over the nib of the regular one c.c. glass hypodermic springe. No. 3 is a piece of gum rubber tubing of sufficient diameter to be easily forced over the short piece of glass tubing and form a coupling device for the syringe and hemacytometer as illustrated in No. 1. If rubber tubing cannot be obtained which will accommodate the glass tubing, a short piece of the regular suction tubing (gum) may be used as a couple although this method does not give as firm an assembly as the first mentioned.

This arrangement presents a neat piece of equipment, can easily be disassembled for cleaning, and presents many advantages over the old method of mouth suction.

When using the apparatus, the plunger of the syringe should be lightly vaselined and withdrawn with a slight twisting motion when taking samples.

To clean the disassembled apparatus a common water aspirator, attachable to any faucet, will draw rinsing solution through the pipette and may also be used as a method of drying the pipettes.



IMPROVED BLOOD COUNTING APPARATUS.
(1) Assembled Apparatus, (2) Hypo Syringe, ½cc Glass, (3) Rubber Tubing, (4) Hoemacytometer, (5) Glass Tubing.

The Dietitian's Department

Conducted by Florence H. Smith, S.B.,

Department of Nutrition, St. Mary's Hospital,

Rochester, Minn.

Suggestions and Correspondence Concerning This Department Are Welcome

TEACHING FOOD SELECTION TO PATIENTS

Florence H. Smith, S.B.

THE time which the patient spends in the hospital should be utilized in learning how to improve his manner of living, so that errors which will further impair his health or prevent the restoration of health may be avoided. It is especially important to learn how to select food with wisdom, and systematic instruction should be offered in this subject. The necessity for education in food selection is not generally recognized. Every person accumulates experience by eating three meals a day and is likely to overestimate the value of this experience. Appetite is a safe guide only when unhampered by environment, food cost, or service, and even then it should be controlled by a mind which has a generous store of food facts. Let us master a few fundamental principles underlying normal nutrition and knowing these, let us read widely and from the best authorities before making radical departures from these principles.

It would be as hopeless to write one diet and expect it to meet the needs of all patients as it would be hopeless for a tailor to have one pattern, and cutting all coats over this pattern, expect them to fit his individual customers without alteration. But all coats have so much in common, that a tailor, master of his trade, may make garments to conform to the changing styles each year, and still be guided largely by his previous experience. The same principles apply to diet therapy. The patient with a foundation of normal diet standards, food values, and diet calculation, finds the selection of a therapeutic diet under the direction of a physician a task of unusual interest, rather than a burden.

In order to plan a therapeutic diet correctly we must keep in mind the standards of a normal diet. When a housewife takes a loaf of bread to the county fair, she submits it to the association, knowing that it will be scored and credited according to the standards accepted by the association. So the patient selecting food which will satisfy requirements imposed by his physician will find a diet score card helpful in planning diets which will win the prize of health.

Diet Score Card[1]

1. The fuel value of the diet must be sufficient to maintain normal weight.
2. The proteins of the diet must be adequate for growth.
3. A careful balance must be maintained between the food elements.
4. The residue or bulk of the diet must be sufficient to produce normal bowel movement.
5. The mineral salts must be sufficient for body needs.
6. The diet must contain an abundant supply of vitamins.
7. The food served must be palatable, available, and suitable to the dietary habits of the individual.

[1]The Normal Diet, Including a Diet Score Card, Florence H. Smith, The American Journal of Nursing, January, 1926.

The first requirement of the normal diet is that it shall contain sufficient calories to maintain normal weight. In discussing foods and diet therapy we should learn to speak and think in terms of food values. When we all recognize the importance of food in the development of the individual we will study food values as industriously as we now study money values. We need to become acquainted with the language of the food chemist and apply it to our three meals a day.

The careful weighing or measuring of food is of the utmost importance in dietary treatment. The metric system has been adopted for weighing food because of its convenience. The density of liquids used for food varies so little that liquids may either be weighed or measured, using 1 gram as equivalent to 1 cubic centimeter. Convenient and accurate scales are on the market. A child may be taught to use them.

Food furnishes energy to do work and heat to keep the body warm. Food furnishes building material for the muscles, bones, and body fluids. There are three classes of foods: carbohydrates, proteins, and fats. Carbohydrates and fats are sources of heat and energy. Proteins supply building material for the body. Sugars and starches are practically pure carbohydrates. Cereals and breads are largely carbohydrate in the form of starch. Gelatine and dried egg white are essentially pure protein. Meat, eggs, cheese, and milk also contain protein in combination with varying amounts of carbohydrates and fats. Salad oils of all kinds are essentially pure fat. Butter, mayonnaise, and the cooked fats of meats contain a high percentage of fat.

The energy or fuel value of food is measured by the heat unit called the calorie. A calorie is the amount of heat necessary to raise the temperature of approximately 1 quart or, 1,000 grams of water 1 degree Centigrade. The calorie value of food is determined by measuring the increase in the amount of heat given off from the body after eating a known quantity of the food in question. One gram of carbohydrate yields 4 calories of heat. One gram of protein yields 4 calories of heat. One gram of fat yields 9 calories of heat. A dairyman once gave us an optimal ratio for the carbohydrate and protein in the diet for his cows. He weighed the grain for them carefully, yet he was quite amused when it was suggested to him that his own food should be proportioned with equal care. How many mothers responsible for the feeding of their families know food values and diet adjustment?

We have said that the first requirement in the diet shall be sufficient calories to maintain the body at normal weight. When the patient is in the hospital it is a relatively simple matter to get an estimate of the number of calories in his diet. In order to calculate the calorie intake of an individual it is necessary to know the kind and amount of food served. With this information and a table of food values at hand to show the composition of the foods, the person responsible for calculating the fuel value of the diet is ready for work.

Outside the hospital the task is more difficult unless the diet is served in standard portions and the patient has been taught some of the fundamentals of dietetics. For example, the underweight patient who has been urged to eat will invariably insist that she "eats a lot," while the overweight patient when advised to reduce her calories, will tell you just as emphatically that she eats "scarcely anything." Yet those who have weighed and calculated diets know that it is the exception for an underweight patient to be eating a sufficient diet and that it is just as true, usually, that the obese have been eating excessively. For this reason, it is often necessary to teach the patient to calculate the food value of what he has been accustomed to eat, thus winning his intelligent cooperation and safeguarding him against the advice of well-meaning friends. It is the principles of the normal diet in which we are now interested, for the calculating of the total grams of carbohydrate, protein, and fat in the food eaten by the patient is a simple process that can be mastered in a few hours spent with the text and reference books which are now available.[2]

The best automobile will not run without gasoline, just so, no matter how perfect our bodies, we must not expect them to function properly without fuel, but because the matter of calories is given first place in the diet let us not forget that there are at least six other important factors to watch, which may be easily lost sight of if the attention is focused too closely on the question of calories.

The question of protein: We know from our study of foods that each class of foods has a particular function to perform. Carbohydrates (or starches and sugars) furnish heat to the body. Fat also furnishes heat, but on account of its chemical composition it produces two and a fourth times more heat in the body than does carbohydrate food. Protein, which we find plentifully in meat, eggs, milk, and cheese, has the same fuel value as carbohydrate. But the matter of diet adjustment is complicated by the fact that food has other functions than to produce heat or energy. Body tissues must be built and repaired. *Protein is chiefly important in nutrition because it supplies elements for the building of body tissues.* Therefore, in writing a diet we will take care to supply a sufficient amount of protein. There are very accurate laboratory methods for determining the amounts of protein required in the diet of the individual, but these methods are not available to all. A safe test for an adequate amount of protein is a satisfactory growth and the maintenance of normal weight. A few minutes study of any table of food composition will enable us to select that type of protein food which is most acceptable to us. For example, a diet need not contain meat in order to have an adequate protein supply. The vegetarian's diet permits the use of eggs, milk, and cheese, all of which are rich in protein of the right composition for body use.

The normal diet should maintain a balance between its various food elements. *The individual should be temperate in all food habits. Excessive amounts of food, whether of carbohydrate, protein, or fat, are to be avoided.*

The remaining factors necessary to the normal diet may be considered in any order one desires. It has always seemed logical to consider next the question of sufficient bulk or residue in the diet, because with sufficient residue supplied by fruits and vegetables, we find the remaining necessary factors usually adequate. *For the normal individual, the bulk in the diet is sufficient only when it contains enough non-digestible residue to form a normal bowel movement daily.*

When serving weighed diets to any group of patients it is necessary to write into the diet approximately 800 grams of fruits or vegetables to produce a normal bowel movement daily, if the carbohydrates, proteins, and fats of the diets are held within the accepted normal limits. When the bulk of fruits and vegetables is dropped to 600 grams, it will result in many complaints from constipation. It is necessary to encourage patients to wait a sufficient time for normal bowel movement to form before declaring the diet a failure. The food taken on any single day should normally furnish the material for the bowel movement of the third or fourth day. If the patient follows the diet consistently, he will find that after a time he can safely reduce the quantity of bulk if it still seems a burden. We hesitate to advise this, ever, unless the bowels move too frequently and the stools become mushy or liquid, because of the valuable qualities, other than bulk, which a diet rich in fruit and vegetables affords. By no means do we favor the omission of other necessary factors, such as eggs, milk, meat, etc.

The mineral content of the diet should be sufficient. Perhaps this is the best argument in favor of the use of fruits and vegetables. A diet containing fruit and vegetables enough to produce residue to avoid constipation, plus protein for normal growth and additional fuel foods to produce normal weight, will furnish an adequate supply of mineral salts.

There should be a sufficient amount of vitamins in the diet. We read in scientific magazines, in popular magazines, and in the street cars, of the value of this food accessory, the vitamin, but because this very important thing has been thus widely advertised we are likely to look upon it as a fad or passing fancy. This is not the case, because these dietary factors play an important part in the life of the individual and the development of the race. We hear them overemphasized just now, because they are comparatively new. We are especially fortunate in living in a country where there is a wide variety of fruits and vegetables and dairy products available. Vitamin deficiency often develops in locations where the choice of food supplies is limited, or in individual cases, where through lack of education in proper food habits, the patient has limited himself to a very narrow variety of foods. A diet containing eggs, butter, milk, vegetables, and fruits is the safeguard needed against disease due to vitamin deficiencies.

[2]Feeding the Family, Mary S. Rose. American Food Products, Bulletin No. 28, U. S. Department of Agriculture, Washington, D. C. Food Values, Edwin A. Locke. Laboratory Handbook for Dietetics, Mary S. Rose.

1926 GRADUATES, MERCY SCHOOL OF NURSING, IOWA CITY, IA.

FIRE INSURANCE FOR HOSPITALS

MR. L. D. WOOD, manager of the General Insurance Agency, Inc., of Philadelphia, delivered an interesting address before the Trustee Section of the American Hospital Association at Atlantic City, N. J., on Sept. 30, 1926, in which he discussed plans for reducing insurance rates to hospitals and the matter of proportioning insurance to risk.

Mr. Wood said that many underwriters, statisticians, and qualified observers argue that according to present methods of fixing rates some risks are charged too much and some too little. General hospitals are the best large group risk we have, Mr. Wood claims, and thus are entitled to a much better rating than they now enjoy. He feels confident that hospitals as a class are paying from three to five times more than they should on the basis of the losses incurred and laid to them by insurance companies.

Mr. Wood recommended that hospitals make a concerted, group effort to secure reduction in rates by supplying to the companies detailed statistics covering a period of years to prove that they are entitled to a reduction. Some years ago the brewers did this and secured a reduction of nearly 50 per cent in their insurance rates.

In regard to proportioning the amount of insurance contracted for, Mr. Wood reminded his audience of hospital trustees that an insurance policy is not a protection against fire nor a promise on the part of the company to pay a definite sum in event of fire. It is an agreement to pay, under certain conditions, for proved loss or damage, up to a certain amount. The adjustment is to be made on the basis of replacement value at the time of the fire, less proper allowance for depreciation. Too often, the amount of insurance contracted for is based upon the cost of a property a number of years ago, or on book values, or on an estimate which is little better than a guess. It would be hard, he says, to replace a structure at a cost of $625,000 with insurance payments of $300,000 even though the latter amount did represent its value at the time the building was erected and first insured. He recommends that, if property has not been appraised within the past few years, that an appraisal be made by someone whose findings may be relied upon and used in determining the amount of insurance which should be carried.

Another recommendation was that the insurance policy contain a blanket coverage clause thus including many items that might otherwise be omitted and, therefore, uninsured. The policy may also be drawn to include equipment acquired after the insurance is placed. Mr. Wood recommends, in all of these matters, the consulting of a competent adviser other than an insurance agent.

URIC ACID[1]

George K. Meynen, M.D., Surgeon of Mary Immaculate Hospital, Long Island, N. Y.

Our forefathers have bequeathed us many fallacies concerning the human body and its ills. You have all heard of the superstition that the carrying of a horse chestnut in one's pocket will prevent or cure rheumatism, and that the same effect can be obtained by wearing an electric ring, the resulting black circle around the finger being the evidence that the poison is gradually extracted from the body. Electric belts, magnetic rods, and other forms of quackery were long in vogue, but common sense and a more general understanding of the care of our body and the prevention of disease, has placed these methods in the discard, and quackery, although unfortunately still practised, will eventually be a thing of the past. The saying that you can fool some of the people all of the time, all of the people some of the time, is still true.

[1]One of a series of Health Talks to the employees of the Long Island Railroad. Dr. Meynen is chief surgeon of the L. I. R. R.

GRADUATING CLASS, 1926, ST. PATRICK'S HOSPITAL, MISSOULA, MONT.

The belief that many of our ailments are due to an excess of uric acid in the system, and that consequently we must avoid the taking of acids, remains quite universal. Uric acid is formed within our bodies, and not taken from without. The great majority of acids that we ingest are taken in the forms of fruit and vinegar, and these acids are practically citric acids and in no way related to uric acid. As a matter of fact, the only disease in which there is an excess of uric acid is gout.

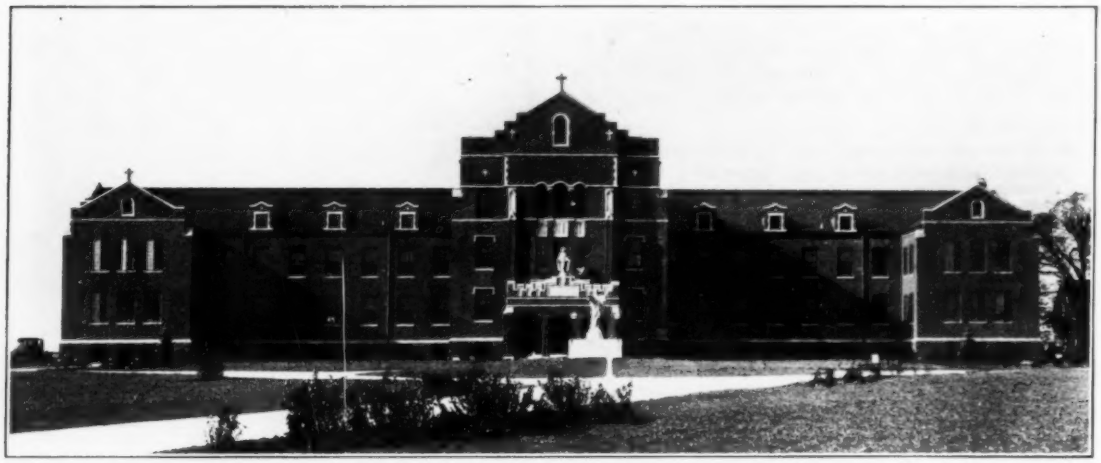
Our dental friends used to tell their patients, and this was the belief at that time, that they had too much acid in the system, as shown by the deposit about the base of the teeth at the gums. This is the disease called pyorrhoea, and it is now known that it has nothing to do with uric acid. Another fallacy is that people suffering from rheumatism must not eat meat. Meat has nothing whatever to do with the causation of rheumatism—it does not produce uric acid, and besides, uric acid does not cause rheumatism. Rheumatism is the result of germ action, just as blood-poisoning is the result of germ action—the germs form a toxin which causes the disease.

Let us now get down to a few fundamental facts. As rheumatism is caused by toxins, the result of germ action, we must look to some focus of infection such as a pus pocket about the root of a tooth, or to infected tonsils or some area of suppuration (pus production), in other portions of the body. These areas should be inspected by a medical man, and proper treatment applied for their removal.

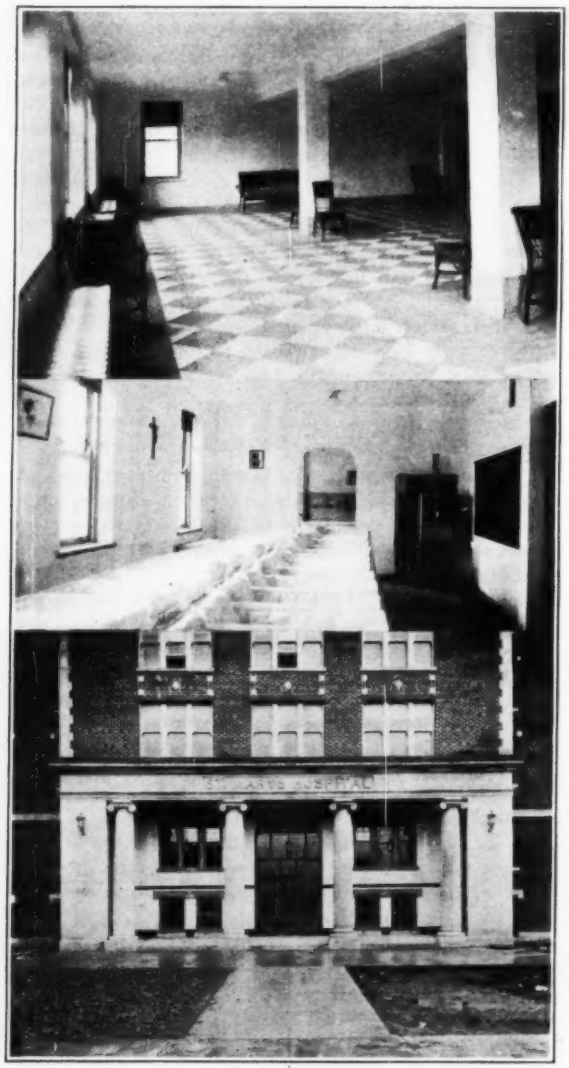
Medical treatment is of little value until the cause of the trouble has been ascertained. To keep in perfect health food is necessary. We have teeth to chew with and digestive organs to prepare our food for assimilation. Let us use them properly. Please remember that vegetables and their products—bread, cereals, etc., are starchy foods and that living creatures and their products—milk, eggs, etc., are albuminous food, digested in the stomach and not in the mouth. Both are digested in the upper bowel after leaving the stomach.

This means that we should thoroughly and slowly chew all starchy food—it is not so necessary with the albuminous food. Food properly masticated and in proper quantity, and at the proper time, does not cause disease, so please get rid of this bugaboo that we have too much acid in the system and therefore cannot partake of fruits. Fruits are most valuable as a form of nourishment, as I have previously told you, on account of their richness in vitamines.

The New St. Mary's Hospital, East St. Louis, Illinois



ST. MARY'S HOSPITAL, EAST ST. LOUIS, ILL.



ST. MARY'S HOSPITAL, EAST ST. LOUIS, ILL.
Visitors' Lobby.
A Section of the Nursery.
Detail of Main Entrance, New Building.

ON Sunday, Sept. 19, the new $1,000,000 St. Mary's Hospital at East St. Louis, Ill., was dedicated by Rt. Rev. Henry A. Althoff, bishop of Belleville. The dedication began with pontifical High Mass at which the bishop was assisted by twenty priests.

St. Mary's Hospital is operated by the Sisters of the order of Poor Handmaids of Jesus Christ, an order founded in Germany 75 years ago. Mother M. Tabitha, provincial of the American province of the order, came from Donaldson, Ind., to be present at the dedication of the new St. Mary's. To Sister M. Engelberta, the superior of St. Mary's, is due in large part the success of the big undertaking of building a hospital which with its furnishings will cost about $1,500,000.

During the afternoon and evening of the dedication day a continuous stream of visitors inspected the new building. A hundred members of the Knights of Columbus acted as guides to the visitors. Hon. M. M. Stephens who was mayor of East St. Louis 35 years ago when the original St. Mary's Hospital, erected through the efforts of Rev. C. Koenig, was dedicated, was present to take an active part in the ceremonies. Rev. Emil R. Jaeger, president of the Deaconess Hospital of the city, sent for himself and his hospital, congratulations to the Sisters on the completion of their new building.

Structure

St. Mary's Hospital is a modern, fireproof, four-story structure of reinforced concrete with red brick, and buff and Bedford stone exterior. The main entrance is remarkable for beauty of architecture and workmanship. Four massive Doric pillars flank the doorway. Above the doorway on each side of the entrance gilded lanterns are placed to cast a soft glow at night. Concrete walks lead up to the entrance. Lawns and flower beds in front of the building are under preparation.

The building, planned by J. W. Kennedy of East St. Louis, Ill., and erected by Frank Kratzer of St. Louis, Mo., contains 300 rooms, including 250 private rooms, four operating rooms, two children's wards, four

business rooms including the main office, two emergency rooms, three sun parlors, six diet kitchens, a laundry, auditorium, chapel, laboratories, drug rooms, refectories, kitchens, and extra rooms. The new building has a capacity of 280 beds, and the old one 150 beds. When necessary the new hospital can accommodate 500 persons at one time.

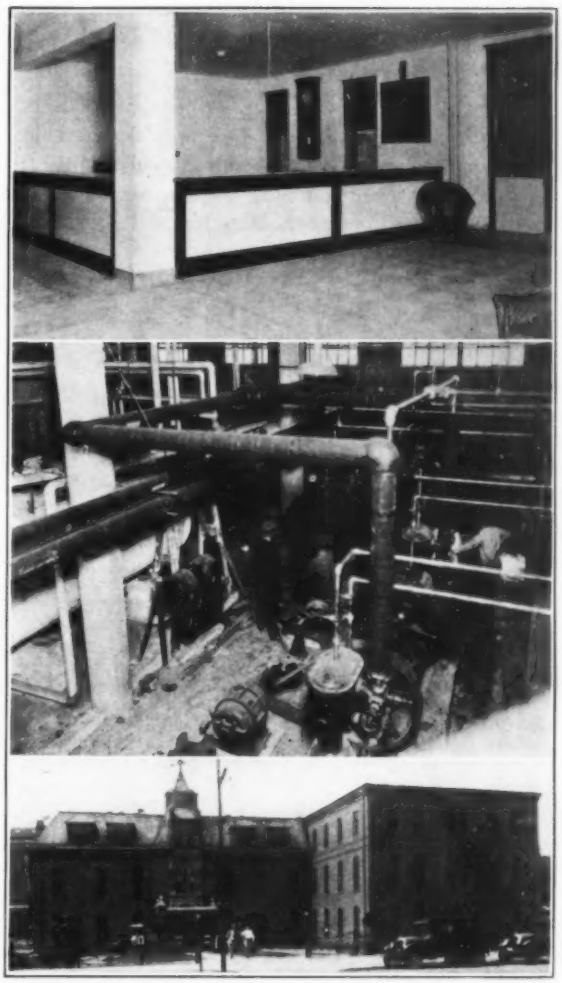
The stairs and floors throughout the building are finished in terrazzo and scagiola work. The building is equipped with two electric elevators. The furniture in the patients' rooms and wards, though having the appearance of grained wood, is made of a steel composition. The walls of some of the rooms are of tile, while others are plastered. The doors, made of wood, are the only inflammable outfitting in the building. Though every precaution has been taken to equip the building with non-inflammable materials, hose lines have been installed on each floor.

A new light signalling system has been installed which informs the nurse when her patient is in need. A light above the door indicates the room, while a pilot light at the end of the hall warns the intern or Sister on duty on the floor. There is also an autocall for summoning doctors or others. This continues a musical sound till it is answered by the nurse in charge of the floor.

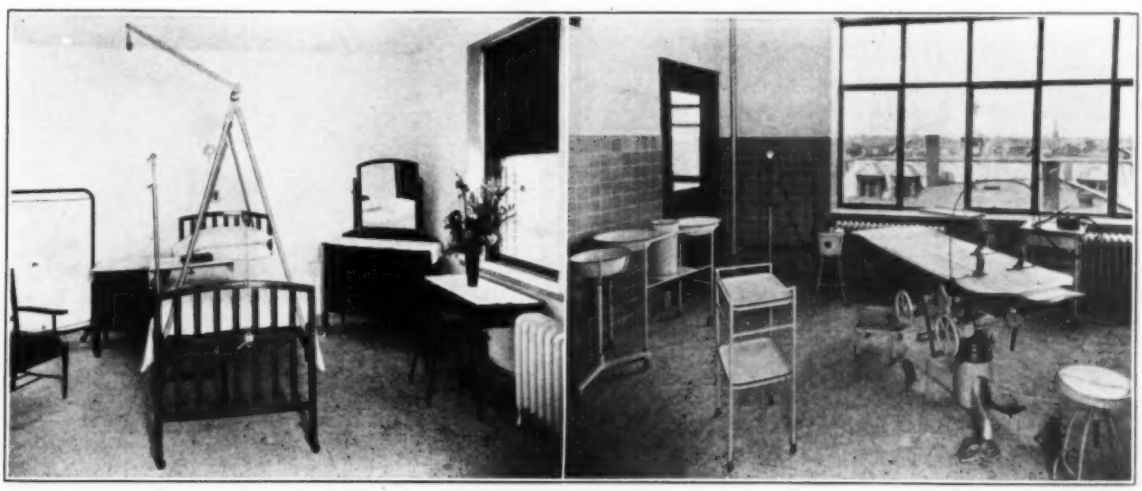
On each floor a diet kitchen is located, where food for the patients is prepared by the dietitian. These rooms are large and contain ice boxes, sinks, and other necessary equipment needed to prepare a patient's meal.

First Floor

Entering the building through the main entrance you will find two reception rooms, one on the right and one on the left. To the left, near the entrance, is an electric recording board, upon which every physician who practices at the hospital will have his name. Upon entering, the physician presses a button which causes a light to loom up beside his name. This in turn lights



ST. MARY'S HOSPITAL, EAST ST. LOUIS, ILL.
Main Office With Large Glass Desk.
Boiler Room.
Entrance to the Old Building.



ST. MARY'S HOSPITAL, EAST ST. LOUIS, ILL.
Patient's Room With Fracture Bar Attachment for Bed.
An Operating Room.

up his name on the board located in the rear of the general office, and can easily be seen by the attendant on duty.

In the main office is a large desk of highly polished black and white glass. This desk was designed by Frank Kratzer, architect and general contractor. It was made and presented to the hospital by the Pittsburgh Plate Glass Company. Here you will also find a switchboard. The first floor also contains a physician's library, consultation room, secretary's room, superior's room, bookkeeper's room, a nurses' general room, an emergency room, and a sun parlor.

Second Floor

The second floor is almost entirely devoted to private rooms. There is a sun parlor at the end of the hall, and the nurses' rooms are at the end of the main hall. These rooms contain a desk, phone, and signal light, and the nurses are to keep the records of their patients in these rooms. The chapel is located between the two wings on this floor. It has a seating capacity of 500 or more persons.

Third Floor

The arrangement of the third floor is very similar to that of the second floor, being almost entirely devoted to private rooms, and having a sun parlor at the end of the hall, and the nurses' rooms at the end of the main corridor. The balcony of the chapel, which is used by the choir, is also on this floor.

Fourth Floor

The maternity department, operating rooms, x-ray rooms, nurseries, and laboratories are located on the fourth floor. In the south wing of the building is the maternity department, which is one of the best equipped in the country. In a far corner are three special rooms where three deliveries can be made at one time by three different doctors.

The nursery containing forty cribs is immediately across the hall. From the time the babies are born until they are taken from the hospital they will be confined to a partitioned room, to which no one but the nurse in charge will be admitted. Parents and visitors who wish to see their infants will have to look through a glass window so that infectious diseases may not be distributed among the newly born. In the wall of the nursery is a warmer heated by electricity, wherein the infants' clothes will be kept warm. The nursery also contains several specially equipped bath tubs.

There are four operating rooms, one for each kind of operation. The first room in the specially partitioned department is for minor operations. A room separates this one from another, which is used for major operations. The third room is for infectious diseases, while the fourth is for laboratory experiments. This department also contains a suite of rooms for deep therapy and x-ray examinations. One of the x-ray rooms is entirely lined with lead—walls, ceiling, floors, and doors, in order that the rays may not escape. The x-ray devices are all entirely new and of the latest improved type. In a special dark room adjoining the exposure room, the plates will be developed. A laboratory, containing all standard hospital equipment, including a refrigerator for specimens, is located on this floor. The refrigerator is operated by electricity. The drug room, too, is found on the fourth floor. Here prescriptions will be filled.

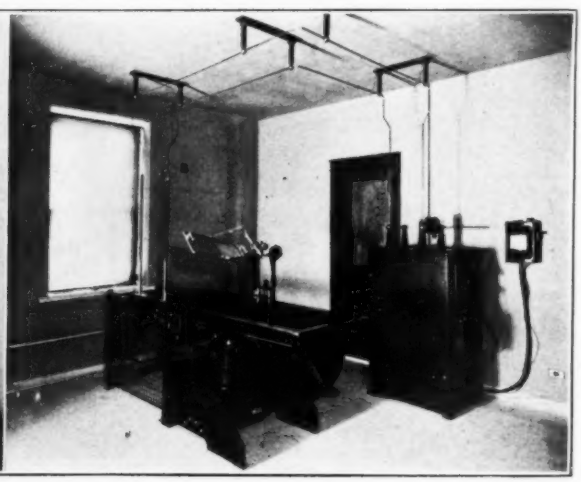
Basement

In the basement is an auditorium measuring 50x90 feet, a kitchen, and the furnace and heating rooms. An entrance to the laundry is accessible from the basement. The laundry is electrically equipped and complete with washing, ironing, drying, and pressing machines, which are operated by hospital attachés.

Roster of Attendants

The roster of attendants at St. Mary's Hospital includes sixty-two staff physicians and surgeons, thirty visiting physicians, sixty-three student nurses, six interns, twenty-four Sisters, two graduate nurses, two orderlies, twenty female employees, and sixteen male employees and laborers.

A Corner in the Sun-Room of the Nursery.



X-Ray Room.

ST. MARY'S HOSPITAL, EAST ST. LOUIS, ILL.

Echoes from the Maritime Conference

PRESIDENT'S ADDRESS—MARITIME CONFERENCE[1]

Sister Anna Seton, Halifax Infirmary, Halifax, N. S.

I ESTEEM it my very great privilege that as president of this association, the honor has fallen to me of extending to you a cordial welcome to this fourth annual meeting of the Maritime Conference.

When the announcement reached us that the American College of Surgeons was to hold its annual meeting in Bangor, Maine, we thought to abandon the Maritime Conference meeting altogether. But, at the first intimation of this decision, a speedy and cordial invitation was sent out by Rev. Mother Ignatius to come here to Antigonish; and it is, therefore, in response to this invitation that we are happily assembled in this hospital, recently dedicated to the service of suffering humanity. I wish particularly to call the attention of the members to the magnificent building in which we are privileged to hold our meeting, as it manifests in a tangible way the energy, progressiveness, and prosperity of our union.

While we have to regret the absence of the members of the American College, from whose instructive papers and discussions we received inspiration and stimulus to hospital progress and efficiency, we are, on the other hand, compensated by the fact that, under present conditions, more time is afforded us for studying our own organization, and strengthening its weak points.

That, during the past year, we have definitely progressed along the lines of hospital standardization the following statements will show: Two hospitals have been added to our list; additions for increased bed capacity have been erected; new departments have been opened, basal metabolism, x-ray, and pathological laboratories have been extended; and Sisters have been sent away for special courses. These, with many other incidental happenings, which time does not permit me to enumerate, go to show that we are slowly but surely moving upwards.

SCENE ON BRAS D'OR, NOVA SCOTIA.

That you may have some insight into the work done in our hospitals, I shall in the following statistics give a brief summing up of our various activities during the past year. As only ten hospitals are included in this summary the numbers are, in each case, lower than the actual: New buildings erected, one; increased bed capacity, 60; patients received during the year, 10,128; patients treated in out-patients' department (6 hospitals), 475; registered Sister nurses, 56; Sisters in training, 11; Sister technicians trained, 20; technicians in training, one; hospitals having Sodality, Children of Mary, 3; hospitals having active alumnae association, 2.

CODFISH DRYING AT DIGBY, N. S.

ROAD BY THE HARBOR, NOVA SCOTIA.

Another gratifying feature of this meeting is the fact that, through the influence of our honored president, an additional hospital has entered our conference — that of the Sisters of Mercy of St. Johns, Newfoundland. We hope, when the next annual meeting comes around, to see in our midst their representatives.

I cannot conclude my remarks without paying a tribute to the energetic and self-sacrificing work of our devoted president, Father Moulinier, to whose untiring activities much of the present strength of our association is due.

While regretting the absence of Father Moulinier we feel that Divine Providence has been watching over us in that his representative is a priest whose power has been attested by the noble additions to Catholic literature which bear his name, and his contributions to various forms of educational work and nursing progress.

In conclusion let me offer my congratulations to the Conference on the progress made in the past year; and hope that the next year may find us in ever increasing measure in the front rank of those who are working for the service and betterment of hospital efficiency in the Maritime Provinces.

[1]Read at the Maritime Conference of the Catholic Hospital Association, St. Martha's Hospital, Antigonish, N. S., Sept. 1-3, 1926.

HOSPITAL ACCOUNTING[1]

Sister M. Harquail, Hotel Dieu, Campbellton, N. B.

THE type of hospital and the information sought should govern largely the system of accounting. In any case it should be simple but complete. It should be one that can be easily interpreted by all concerned, and so arranged that comparison can easily be made. It should comprise a complete statement of receipts and disbursements, assets and liabilities.

At the Hotel Dieu we have adopted the following system. A daily cash book is kept in which entry is made of all cash receipts and disbursements during the day, and which must balance with the cash on hand at 6 p. m.

[1]Read at the Maritime Conference of the Catholic Hospital Association, St. Martha's Hospital, Antigonish, N. S., Sept. 1-3, 1926.

This is transferred to the journal where receipts and disbursements are entered and the different accounts for which transactions were made are credited or debited. At the end of the month this is posted to the general ledger, and presented to the superior and her counselors. One can see at a glance the receipts and expenditures for the different departments of the hospital, and make comparison with previous months and investigate the expenditures of the departments which are going behind. At the end of the year a financial statement can readily be made and per capita cost calculated.

We classify separately corporation and operating accounts. Corporation includes, loans and legacies, loans reimbursed, and interest on loans; equipment and sundry expenses other than those for the actual operating of the hospital. The receipts of the operating accounts include, subsidies, hospital earnings, farm receipts and fairs, etc. The disbursements include, sacristy, administrative, housekeeping, laundry, maintenance and repair, fuel and light, farm expenses, salaries for professional care of patients, dietary, medical and surgical supplies, and insurance.

Although the Sisters working in our hospitals are not receiving salaries, yet, in order to make out operating expenses and a per capita cost which admit of comparison with other institutions, we calculate Sisters' salaries at a rate paid to seculars in an institution of similar size, and charge to operating expenses, and credit corporation receipts with the same amount.

As to the patients' accounts we try to ascertain the financial standing of patient on admission, consulting all sources at our disposal, as the patient's statement is not always the most reliable. No private rooms are given unless payment is made weekly in advance. We have not yet exacted weekly payments from ward patients, but we try to obtain at least part payment on discharge and regular monthly payments afterwards, or, in case of the head of a family, as soon as possible after he begins work.

Collections require a continual follow-up if any results are to be obtained. As soon as patient is discharged by the attending physician, the nurse makes out on the reverse side of the admission slip a list of the items to be charged other than board, has same checked by the supervisor of the floor, and takes it with the chart to the bookkeeper, who makes out the account in the patient's account book, and a copy for the patient. She has a price list of the medicines, operating room charges, laboratory, x-ray, etc., but when in doubt consults the pharmacist or the supervisors of the different departments.

At the end of the year we make also a statement of all the patients' accounts, classifying, as paid, part paid, and free under the headings of the different municipalities where the patients reside.

A standard system of accounting would be desirable, in that it would better admit of comparison, and several welfare departments of cities in the United States have adopted a standard and the hospitals find it satisfactory.

THE TRAINING OF CHARACTER IN SCHOOLS OF NURSING[1]

Sister M. Camillus, St. John's Infirmary, St. John, N. B.

WHEN I was asked to present a paper on the above subject before this Conference, I was reluctant to attempt so important and deep a theme. I feel my inability to do justice to a subject which many present know more about and could handle with more precision. However, I shall touch briefly on some of the important points, hoping at the same time that my hearers may prove indulgent and consider my poor efforts as a starting point for a free and helpful discussion of this vital phase of the nurse's training.

The character of the young woman entering the nursing school is at least partly if not wholly formed, depending of course on the age, experience, and mental and physical development of the individual. Her character, however, even if fully formed, is still capable of being influenced by the example and spirit of her teachers in the school and by the atmosphere they create. By the teachers, I mean the superintendent of nurses, the heads of the different departments through which she passes during her training, the attending medical and surgical staff, the senior nurses, and last but not least, the chaplain. Students of a fine type will also be a great help to the younger nurse who is still in the formative stage and with whose character training we are concerned in this paper.

The young woman who enters the nursing school fresh from high school (and most of our student nurses belong to this class) has little experience of life and none whatever of hospital life as a student nurse. In her lie dormant, as it were, qualities, which with the right influence and direction will bud forth and bloom into the choicest flower of our profession, namely, one who is all that a student nurse should be and later on, an ideal graduate nurse. Where these qualities are lacking in the young nurse, the wise and prudent superintendent early recognizes the deficiency and informs the student of her unfitness for the nursing profession. How to instil the fundamental qualities and train character in such an individual, if it is worth the effort, are problems which hospital authorities meet with and find difficult to handle. Personally, I think they cannot be instilled.

The helps that are at the disposal of the nurse in training, as far as development of character is concerned, are many and varied. Aside from the great influence of religion which is the foremost factor, we have the influence of a wise, prudent, firm, but kind superintendent with high ideals who is the nurse's constant companion during training, from her entry to graduation. It is incumbent on the superintendent to instil by word and particularly by example the spirit of her profession; to warn the nurse of the dangers that lurk in the path of the profession and gradually to elevate her aims and inspire the best and highest motives in the execution of her work.

Those in charge of the different departments, the head nurses in the wards, the doctors, the graduate nurses with private cases in the hospital, exercise an influence for good or ill on the character of the nurse in training. Then the regular hours for duty, study, rest, and recreation, etc., tend to the formation of good habits; discipline and obedience to rules are helps in acquiring self control and abolishing any laxity of discipline which may have existed in the home life of the student. The maternal instinct of the nurse must be stimulated, so that the sympathy, gentleness, and tenderness which are essential characteristics of the ideal nurse, may not be blighted while urging the development of the points of character referred to.

The pervading influence and great factor as I have said, is the instilling of the religious spirit so that it, above all else, permeates the work of the nurse. The maxims of religion as guiding principles are indispensable; the realization that there is no body without a soul, gives the nurse an opportunity of proving herself an apostle also. The grave responsibilities which occur every day in the life of a nurse, can be borne successfully only by the one who is guided by faith and strengthened by the divine assistance obtained by prayer. This faith can be fostered by yearly retreats, conferences, daily as-

[1]Read at the Maritime Conference of the Catholic Hospital Association, St. Martha's Hospital, Antigonish, N. S., Sept. 1-3, 1926.

sistance at Holy Mass, and frequent reception of the Sacraments.

To my mind the most efficient and common means in this cause, is the good example of the teachers. There is no place in which example speaks louder than in the school of nursing. A negligent supervisor, one careless about the little things, even the seemingly trifling niceties of etiquette, has a tremendous influence for ill on the character of the student. Encouragement here, as elsewhere is a great help. Show the student that you trust her, or explain why you cannot rely on her work, with a view to making her more reliable. Permitting the nurse, now and then, to assume your responsibility in an urgent circumstance, and commending her dexterity, etc., is good.

Many are the aids which might be enumerated and various the methods we might follow, but it is my hope that by exchange of ideas on this, as on other subjects so successfully treated of in former conferences, we may come by a better knowledge and newer ideas, so that we can give to our profession, nobler and better nurses.

THE ADVANTAGES OF AN ALUMNAE ASSOCIATION[1]

Sister Elizabeth Seton, Halifax Infirmary, Halifax, N. S.

PERHAPS the outstanding characteristic of all schools in our day is what is known as the "Follow-up Movement," by which term is meant that interest which binds Alma Mater to watch with loving care the career of the student whom she sends forth equipped for duty; and which, in turn, demands, on the part of the student, a loyal interest in the welfare and progress of the Mother School. No branch of education has developed in recent years with the phenomenal rapidity of nursing. Nursing education has passed through the transitional stage of apprenticeship, and has developed into a profession that ranks high in its service to humanity and medical science.

In the beginning the nurse needed little more than sympathy and a willingness to administer to the obvious needs of the sick. Not so today. The trained nurse must have a sound, broad, scientific education as a foundation for her training, if she hopes to be able to meet the requirements of her profession. This obtained, she seeks admission to the nursing school of her choice. Here the young woman, who is in earnest, strives to develop and perfect in herself the ability to nurse in an intelligent and scientific manner those who will be placed under her care. In order to attain this high standard she must give herself freely to the work. She must lose herself, so to speak, becoming a part of one large family, the members of her school. Thus, through her association with doctors, with those who teach and direct her, and last but not least, with her companions, she becomes transformed, and after many, perhaps to her bitter, trials, she emerges from this period of probation a sympathetic, true, and efficient nurse.

Her course completed, the day of graduation has come and now she must leave her Alma Mater to assume her responsibilities alone. A difficult task indeed! Is she then to sever all connections with those who, by their kindly interest have helped her up the steep ascent? Are her companions, with whom she has labored, to be so soon forgotten? No, such is not to be the fate of her who comes to serve her fellow men. Outside the hospital the members of the Alumnae association await her, they welcome her to their ranks, they share with her their well-tried experience, not only in the hospital but in the more arduous and difficult field of private duty nursing.

The alumnae association is the connecting link between the school and the profession, standing sponsor as it does for the young graduate whom the school has selected, trained, and it is hoped, inspired. Let the young graduate remember that upon the character and ability of the individual rests the honor and universal recognition of the alumnae as a whole.

The objects and advantages of an alumnae association are varied and numerous. The following may be mentioned:

To be of mutual help and improvement in professional work and the promotion of good fellowship among the graduates of the school.

To promote the advancement and interests of the hospital.

To educate new graduates to their responsibilities as members of the profession.

To make an effort to keep alive certain ideals often lost sight of in the stress of a busy professional life.

To promote unity among the graduates of the school.

To help raise the standard of the school.

To foster post-graduate courses.

To administer a timely warning to those individuals who are not living up to the high ideals of their profession.

One more advantage of the alumnae association is the co-operation of its members with the superintendent and their ability to uphold and strengthen her influence in the school. It is not fair to place all the burden upon the officials of the school. There are many ways in which the alumnae members may influence their school of nursing. It is not always necessary to collect or raise large sums of money for this purpose, but to give freely of their loyalty and support in order that those standards may be maintained which have been established with strenuous effort and sacrifice.

In conclusion let us not forget the spiritual influence of which they are capable since they have been trained in a Catholic hospital, with Christ ever present in the Tabernacle, living under the same roof with them, though hidden from their eyes, and instilling into their hearts the virtues most necessary for them.

As a member of her association, the nurse returns to the hospital as a second home, keeps in touch with her former teachers, brings her difficulties to be solved, and receives timely advice and encouragement. In her hour of need, as in case of sickness, or perhaps, when she can no longer carry on the noble and blessed work of her profession, her association again comes to her aid.

When the individual would be little thought of, collectively the members share the privileges and publicity which can be obtained only through an association.

These are only a few thoughts on the subject of an alumnae association which I trust may be helpful to those wishing to bring together their nurses in order to maintain those ethical and religious principles which are, by earnest and persevering endeavor, inculcated into the hearts and minds of those we teach.

[1]Read at the Maritime Conference of the Catholic Hospital Association, St. Martha's Hospital, Antigonish, N. S., Sept. 1-3, 1926.

COOPERATION BETWEEN DEPARTMENTS OF THE HOSPITAL[1]

Sister M. Bernard, St. Martha's Hospital, Antigonish, N. S.

CO-OPERATION among the different departments of the hospital is not only of vital importance but of strict necessity. Action in the physical world is brought about by the co-operation of the factors that produce such action and this law applies to humanity as well as to material things. Co-operation must follow natural lines if it is to help assimilate group experience and thus lead to the formulation of group opinion and action.

[1]Read at the Maritime Conference of the Catholic Hospital Association, St. Martha's Hospital, Antigonish, N. S., Sept. 1-3, 1926.

The possibilities within the field of the hospital are enormous. The hospital in itself is becoming more and more a factor of the first magnitude in the community structure. It is, therefore, evident that its evolution should proceed with the least possible friction, and this can be accomplished only through co-operation among the different departments of the hospital. The duties of co-operation should be discharged with a keen sense of responsibility, whilst strict enforcement of business methods should be tactfully exercised.

"Order is Heaven's first law." Unless co-operation exists which can pave the way to a closely knitted and well-organized hospital service, all is chaos. No industrial corporation can thrive without unity of purpose and organization of forces in order to attain its end, and neither can any hospital continue to function properly for any length of time without the co-operation of its varied workers. From a material and scientific, as well as from a supernatural viewpoint, it is necessary that there be unification of all the factors and unity of purpose, if the best results are to be gained.

The hospital exists for the patient. It is a great humanitarian organization which seeks to dispense the maximum of service to the sick and maimed. No hospital can attain its highest point of efficiency unless every Sister has an abiding sense of unity and co-operation. A spirit of cheerful and harmonious co-operation facilitates and smoothes the work of the hospital, adds to its efficiency, contributes to its progress, and lightens the burden of the executive. Moreover, it fosters the all-important work which marks the progress of the soul in its heavenward course along the well-beaten path of duty.

All questions of importance should be immediately submitted to the Superior. No organization can function properly without following this procedure, nor without the active and conscientious support of every member who forms the group. The heads of the departments should be vigilant and faithful in the discharge of their respective duties, and at the same time be imbued with a due consideration for their co-workers, as well as for those who work under their immediate direction. Innumerable are the advantages arising from such close co-operation.

Co-operation fosters systematical direction and the methodical arrangement absolutely necessary for the progress of the hospital and the welfare of its patients. A hospital is built solely for service, and its efficiency can be judged only by the character and nature of such service. No matter how magnificent the building and equipment may appear, the effectiveness of its humanitarian efforts will depend upon the Sisters, and the manner in which their abilities are organized and co-ordinated.

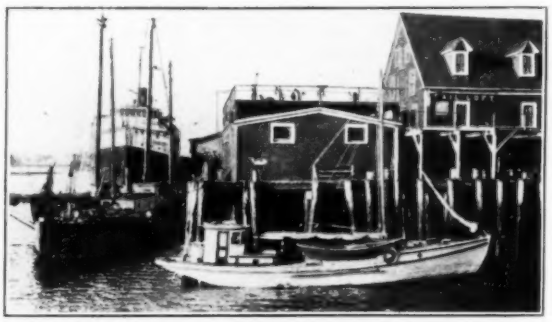
In our brief and uneventful career as hospital workers, we find that weekly conferences are the most effective means of bringing about co-operation. The weekly conference is preferable to the monthly conference inasmuch as it keeps alive enthusiasm. Each meeting tends to enlighten those who participate in it and awaken their interest to a marked extent. Moreover, these conferences when held weekly, help to adjust matters more speedily and prevent annoyances that might be repeated in the course of a month.

There should be a definite plan for conducting such meetings and this may be modified to suit local conditions. These conferences should not rank as discipline by any means, nor become a heavy or serious matter. In order to produce the best results, they should be made interesting and enlivening; they should be conducted with earnestness of purpose blended with good humor and candor. Each one should be encouraged to speak her mind freely, and to make any suggestions that might tend to improve the service, eradicate difficulties, and create a better spirit amongst the workers.

The Superior should preside over the meetings with some one acting as secretary. The notes of the previous conference might be read at the beginning of each. Then each Sister should speak of any problems, difficulties, or neglects with which she has had to deal during the week. The presiding Sister may question each Sister as circumstances may require, and any little abuses that have begun to creep in should be traced to their proper source. The responses should be clear and frank. The conference should cause no strain whatever, the point in view being the welfare of the patient, the progress of the hospital, and the efficiency of its service.

The inevitable result of these conferences when properly conducted is that complaints become fewer, there is a better understanding amongst the workers, and the work is better done. Another happy result is that they show up any tendency to favor one department over the other by the administration, which may easily happen, though somewhat unconsciously, if timely precautions are not taken. A well conducted weekly conference will stimulate the efforts of all who participate, will check little irregularities that are bound to creep into the best conducted institutions, and it will invariably create an atmosphere of helpfulness and tolerance. The younger members may gain much from their seniors whose judgments, for the most part, are ripened and mellowed from experience.

Finally, the weekly conferences are logical and effective means of welding together the links that form the golden chain of co-operation. They can become a sort of functional federation which will enable the hospital staff to carry on a continual educational campaign among themselves. A hospital which is so fortunate as to have an organization of this type will come daily nearer the ideal, and this is the sole aim of all the members of the Maritime Conference of the Catholic Hospital Association. May God fructify our efforts in behalf of His suffering members and bring us to the goal of our desires!



SHIPPING AT YARMOUTH, N. S.

DENTAL CLINIC FOR SISTERS

St. Louis University School of Dentistry has just opened an unique department, a clinic exclusively for Sisters. The new clinic called St. Apollonia House will be in charge of the faculty of the dental school. The diagnosis and plan of treatment of all cases will be the direct responsibility of the faculty. The work will be done by the senior students closely supervised by the faculty.

St. Apollonia House is fully equipped for all types of dental operations. It will have two operating rooms with two chairs each, an extraction room, x-ray room, laboratories, and waiting rooms. Sisters of the teaching or nursing orders may make appointments by personal call, letter, or telephone. Dr. J. P. Harper, dean of the St. Louis University School of Dentistry is in charge of the clinic. His address is 3556 Caroline St., St. Louis, Mo.

The Importance of Hospital Staff Organization[1]

A. S. Musante, M.D., President of Staff and on Surgical Division, St. Joseph's Hospital, San Francisco, Calif.

THE organization of the doctors practising in a hospital, while it can not always be said to bring order out of chaos, surely is a most desirable and advantageous movement for the benefit of every honest and progressive practitioner, those interested in the management of the institution, and the public at large.

Evolution of the Hospital

Hospitals in olden days were places of refuge for the poor who were sick and were in charge of our good Sisters or other Religious. The well-to-do never went to them for medical or surgical treatment, all of the latter's sicknesses and injuries being attended to at their homes. Some of us remember that in our childhood many operations—major, as well as minor ones—were done at the homes of patients, even in the large cities. The most adaptable room would be scrubbed up with soap and disinfectants; the kitchen or dining room table would be fixed up as well as possible and nurses would come and attempt to create a proper antiseptic or aseptic atmosphere. But gradually, things have changed, especially in the last twenty-five years, and now practically everybody goes to a hospital for any illness or accident that amounts to anything—very often even for a diagnostic procedure or a complete study, never thinking at the time of staying for treatment. This and other acquaintances have caused the public to take a greater interest in our institutions and there is not the same strangeness or fear about entering a hospital when it is necessary. This friendly feeling on the part of the public has made the latter realize their responsibility towards hospitals, as they have long felt for churches and such organizations. I will have a little more to say about this later, when I speak of the recent drive for funds for rebuilding St. Joseph's Hospital.

But, the growing tendency of the public to go to hospitals has increased the activities of those who must prepare for the patients. It made it necessary for existing hospitals to enlarge for the influx and for the newer demands of the later developments in hospital work, as well as for new institutions to spring up. Many Sisters' hospitals, especially, have had difficulty in facing the problem, as their orders often have not grown in proportion to the demands and they have had to give up the old idea of doing all the nursing and have opened schools of nursing, where they teach and manage the student nurses. In fact, there has been so much difficulty in providing the needs of the sick that come to hospitals that one hears expressions of a movement quite opposite to that which previously prevailed—namely, should not some of the patients now housed in a hospital be kept at home or, if necessary to have them under care, could they not be sent back home sooner, or to a convalescent home? In San Francisco there is a visiting nursing association, which gives treatments at patients' homes and aids in cutting down the amounts they would pay to the hospital, doctor, and nurse, where these are not needed so much. They charge $1.00 or less and stay an hour or so with each visit. There is also an attitude against certain patients with means using our institutions as "boarding hospitals" and preventing really sick people from entering where there is a scarcity of accommodations.

The fact that we have so many Sisters devoting themselves without remuneration for their services in our Catholic hospitals seems to point to the great advantage these institutions will always possess in offering to the public the best and the most serious hospital service at the lowest charge. Each Sister does more than the work of a salaried lay person and emanates, because of her devotion, a spirit of sacrifice and exalted regard for the welfare of patients. That is why we find so many non-Catholic patients and doctors who prefer to go to such institutions and many mothers who will trust their daughters in the charge of the schools of nursing of Sisters' hospitals.

Staff Organization Important

The increase of hospital attendance of patients and, of course, doctors, has made it imperative to organize the activities of all who visit at or stay in the hospitals—the doctors, nurses, and patients. The Catholic Hospital Association and the American College of Surgeons have both tried to pave the way for an efficient management of all concerned in a hospital through their "Standardization" program. It was based upon the principle that the hospitals should be equipped for giving the sick the best possible treatment and they sought to do it by having these institutions in possession of proper clinical and x-ray laboratories and personnel for them and the staff of visiting doctors so organized that everything that was done by any one of them would be the concern of all. It made it necessary for the staff to review all the work regularly, especially the mortalities, to see if it were possible to improve the activities of the hospital itself or any one of the doctors. At least, criminal and other malpractices were to be eliminated, it was felt.

The Experience at St. Joseph's Hospital

At St. Joseph's Hospital it seems that this "standardization" movement has wrought wonders. In 1920 this institution did not stand very high. Too many old, poor, and chronic patients were sent there and many termed it a "dump" for these kinds of cases, which, while worthy, of course, are the most trying and the least stimulating of all. Later, the Sisters refused to accept these patients, except from those who also sent the better types of patients. Many of the doctors, after reading the "minimum requirements" promulgated by the national hospital associations, felt it would be impossible to meet them and made but little effort to do so. However, the staff was properly organized and the Sisters placed a good deal of power in it and practically all that the doctors recommended was put into practice. The clinical laboratory was placed in charge of a competent Sister and one or two lay technicians and a medical director; the x-ray department was similarly equipped; recognized history record forms were installed; the staff was divided into specialized divisions; the professional work of the hospital was reviewed monthly at the staff meetings and scientific topics also discussed by members of our staff and outside men; whole time interns were engaged; a nursing school was started, and, gradually, the hospital was put into such an improved condition that we were accredited by the American College of Surgeons and, later, by the American Medical Association for teaching the fifth or hospital year for medical students.

There has always been some difficulty and probably the greatest was to get the doctors to do their part in making the records complete, but the trouble is less and less as we go along and we keep up our efforts to improve, although many of the other hospitals do not try to enforce similar regulations, which makes our task a little harder. The organization of our doctors has stimulated the advance of specialization and the consultation with those expert in certain fields, some of whom do nothing outside

[1]Read by invitation at Mercy Hospital, Bakersfield, Calif., May 1, 1926.

their lines. The monthly staff meetings are the backbone of our organization, as here the work, especially the mortalities, are reviewed, the latter either by the attending doctor, which is preferred, or the interns, and the lesson of each death is learned by all present. Interesting programs have lately been held with our own doctors presenting interesting cases which recovered in the hospital. There has been as much diversity as possible in the programs, which follow the routine hospital reports, and a little collation is furnished by the Sisters at the end.

I do not know if it is so here or not, but in San Francisco it seems to me that doctors do not get away enough from their regular work of seeing patients. Of course, the young men in the profession, who do not do much in the day, must do night work and have evening hours, but there are men I know who have more than they can do properly in the day and who have not only day office hours, but persist in keeping up their grind for twelve to fourteen hours a day, returning to their offices at night. Surely, all doctors should realize that they can not do this with impunity; that they would live better and longer if they limited their regular work to eight or ten hours a day. This would enable more or all of these to attend to the development of staff organizations or enjoy such useful hobbies as civic activities, entertainments, family life, religious duties, and many wholesome recreations that make for a happier existence. No part of medical economics is so important as the regular conservation of our personal resources, so that when we, as often happens, find ourselves caught in an exhausting emergency we will not be found already tired out by overwork in our usual occupations.

At St. Joseph's we have an executive board, composed of those named by the Sister Superior at the suggestion of the president of the staff, which takes up such matters as complaints about the hospital service, incompetency of some of the doctors or nurses, and other delicate subjects that can be handled better by a small group of the most interested staff members and Sisters.

About three years ago the "Patronesses of St. Joseph's Hospital" was organized, which has grown steadily. It is composed of the doctors' wives or other female relatives and other ladies related to, or interested in the Sisters. They aid the Sisters in affording recreation for the student nurses and do social work. The Alumnae of St. Joseph's School of Nursing is also a useful body for keeping the graduates together and ever improving their qualifications.

The New St. Joseph's

Since becoming accredited, those at St. Joseph's Hospital have felt that, while the work done in the institution was such as to warrant recognition by the A. C. S., the principal buildings were not up to date and should be rebuilt of fireproof material, as the power house and laundry were in 1921. We discussed the raising of money for years and gradually interested more prominent people. A large number of public spirited citizens, many non-Catholics, were efficiently organized about a year ago and quite a successful drive for $500,000 to rebuild was made. The Sisters expect to add $750,000 with bonds. The response of the public was better than we dared to expect. They certainly felt their sense of responsibility to this hospital. Jew, Protestant, Catholic, and those of no creed rallied to the plea of Archbishop Hanna and others for the institution which had served for thirty-five years, offering hospital services at the lowest prices in the city. The public met its obligation nobly. No small help was given to the Sisters by the doctors, the "Patronesses," the nurses, and their old and new friends. The new fireproof units are in course of construction. The first, the nurses' home, is completed and will allow the previous dormitory to be torn down and make way for the main unit to be built. This will provide for over two hundred beds for patients, a new chapel, new laboratories, operating rooms —in fact, everything will be new when it is completed, which will be within a year, and then the present buildings will all be wrecked and there will stand at Buena Vista Avenue the most up to date hospital in California!—at least until a later one is constructed.

In conclusion, I plead for more of your time and as energetic and sympathetic an attitude as possible for the organization of your hospital staff. With the altruistic example of the Great Physician Himself permeating this institution, controlled by God-fearing and God-loving women, who are sacrificing their lives for the sick, may you ever act in consonance with your better natures, in evolving from your labors a service that shall mark you as men of high ideals and exemplary performances!

MORE FACILITIES NEEDED FOR CONVALESCENT CARE

Are there medical malingerers in New York City? Do people feign illness or disability to obtain care in public and private hospitals or in convalescent homes? Dr. Louis I. Harris, Commissioner of Health, does not believe so. "People sometimes fear that workers may malinger sickness," said Dr. Harris, "but workers may malinger health until they are thrown on the scrap heap."

Dr. Harris' opinion is shared by Dr. E. H. Lewinski-Corwin, Director of the Hospital Information Bureau of the United Hospital Fund. Dr. Harris and Dr. Corwin discussed this question following a conference at the Academy of Medicine on the community's facilities for the care and treatment of the sick, especially facilities for convalescent care. Dr. Corwin referred to the convalescent problem as "this woefully neglected field of health service" and said that if convalescent facilities could be made adequate, "the hospital bill of the community would be lessened and the strain upon the hospitals reduced."

The Information Bureau of the United Hospital Fund, which recently published a directory of convalescent facilities, is promoting the establishment of sufficient facilities to care for patients discharged from hospitals, who for a lack of a place to go to complete their recovery, return to their homes and work too soon and undo the work accomplished for them in the hospitals. Dr. Harris deplored the gap between the hospital and the home.

"There is a definite hiatus between the hospital and the convalescent home," said Dr. Harris. "The hiatus is not only in finding the proper sort of institution and an adequate number of institutions for convalescent cases, but it affects admission of individuals from hospitals at the proper time. We have not yet worked out a smooth way of making the convalescent home an annex of the hospital, functioning almost automatically as an integral part of the hospital system. The large group of people competent to secure care for themselves does not concern us. There is a greater number who have no such resources.

"There is a hiatus between the condition of the patient at the time the hospital authorities consider him ready to leave the hospital and the normal standard of health. The filling in of this gap must be provided for. There must be vocational readjustment which will bridge over the trouble many have in trying to get back into industry. A besetting sin of institutions is to set a time limit. The patient must get well in a prescribed time limit. There ought to be a well-ordered system which will deal with the individual's peculiarities, which will not be limited as to time, will allow medical discretion, allow proper supervision.

"There must be an alliance of the work of the social service worker in the hospital and those caring for the patient in dealing with those who 'graduate' from the hospital to the convalescent home. 'Graduation' is a gentle transition, not a break. The need for proper convalescent care has been met ever so slightly, a far greater need than the convalescent homes now existing are able to supply. More institutions are needed, a method of work to see that the case gets to the right home in the least possible time and that the patient is readjusted to meet the needs

(Concluded on Page 72a)

News for Nurses

MEMBERSHIP OF THE I. C. G. N.

Report of cities and states which have representation of over ten members in the International Catholic Guild of Nurses, Nov. 4, 1926.

States		Cities	
Illinois	138	Chicago, Ill.	93
Pennsylvania	134	Pittsburgh, Pa.	80
Minnesota	81	Rochester, Minn.	58
Wisconsin	67	Grand Rapids, Mich.	27
New York	63	Lincoln, Nebr.	23
Michigan	56	San Antonio, Tex.	23
Indiana	53	Baltimore, Md.	23
Nebraska	48	Elmira, N. Y.	22
Texas	46	Philadelphia, Pa.	22
Missouri	31	Gary, Ind.	20
Maryland	27	Oklahoma City, Okla.	18
Ohio	25	Milwaukee, Wis.	18
Oklahoma	21	St. Louis, Mo.	16
Iowa	18	Phoenix, Ariz.	15
Colorado	16	Denver, Colo.	14
Arizona	15	Fort Wayne, Ind.	14
Kentucky	15	Louisville, Ky.	13
New Jersey	15	Omaha, Nebr.	12
Massachusetts	14	Fond du Lac, Wis.	12
California	12	Aurora, Ill.	11
Kansas	10	New York City, N. Y.	11
		Manitowoc, Wisc.	11
		Minneapolis, Minn.	10
		Fort Worth, Tex.	10

Gary, Indiana, Chapter, I. C. G. N.

The Gary Chapter of the International Catholic Guild of Nurses has resumed work after the summer vacation and the third Monday of the month has been set aside for its meetings. On Nov. 16th a dance is to be given by the Chapter at the Elks' Club to raise money for the Scholarship Fund. The Chapter also plans to have a candy sale each week to raise money for this fund. Arrangements have been made for a course in public speaking which is to be given by a university instructor. The classes will be held in the nurses' home of St. Mary's Mercy Hospital. Nearly every member of the Chapter has registered for this course.

SOME OF THE MEMBERS OF THE SOUTH SIDE CHAPTER OF I. C. G. N., CHICAGO, ILL.

Miss Marietta Poxon and Miss Emma Karr represented the Alumnae of St. Mary's Mercy Hospital School of Nursing at the convention of the Indiana State Nurses' Association at Indianapolis on October 7th, 8th and 9th. A paper "Group Nursing as Provided for in St. Mary's Mercy Hospital, Gary," was read by Miss Mary T. Walsh, Instructor at St. Mary's Mercy Hospital, Gary, for the Private Duty Section. Miss Walsh attended the Seventh Biennial Convention of the International Federation of Catholic Alumnae which met at St. Mary's College, South Bend in September. She was the delegate for the Alumnae of Mount St. Vincent, Halifax, Nova Scotia. Her sister, Miss Marguerite Walsh, acted as alternate.

The Nurses' home of St. Mary's Mercy Hospital has received its first interior decoration. Of course, this has added much to what was already a most attractive home.

Retreat for Nurses

St. Vincent's Hospital, New York City

The Student and Graduate Nurses of St. Vincent's Hospital followed the Exercises of the Retreat given Oct. 17 to 21, by Rev. Bernard A. Fuller, S.J., of the Church of St. Ignatius Loyola, New York City. At the opening of the retreat 160 nurses were present while the closing exercise was attended by 180 most interested followers of Father Fuller's unique method of developing the Exercises of St. Ignatius. Father Fuller, who has been a patient at St. Vincent's Hospital for several weeks, is suffering from an infection in his foot, which makes it necessary for him to get about in a wheel chair, from which position he conducted the exercises. During the exercises the doctors advised another operation, and three hours after the close of the last exercise found Father Fuller on the operating table.

Father Fuller's plan digressed from that usually followed inasmuch as he did not use or advocate the use of the word retreat. He substituted instead a "council of

HEADQUARTERS, I. C. G. N., AT AMERICAN HEALTH CONGRESS, ATLANTIC CITY, MAY, 1926.

war," and to the council of war table, each individual was to come in from the "battle of life" to report developments and to obtain instructions, incidentally to receive approval or reproof as actions warranted.

Because of the active duties of the nurses they were not required to keep absolute silence, but they were advised to be as quiet as possible and to enter into the spirit of the retreat. The order of the day was so arranged that it did not materially interfere with the regular duties of the nurses: A short conference in the morning after Mass at 6:10; Conference and Benediction of the Blessed Sacrament at 7:45 p. m. During the day, spiritual reading at meal time, Rosary in the chapel after dinner, and a short conference after supper. The nurses on night duty were relieved by the Sisters for the morning and evening conference.

After the conference on Wednesday evening the following members were received into the Sodality of the Blessed Virgin, by Rev. Charles Connor, S.J., the moderator of the Sodality: M. Veronic Tetreault, Mary L. Prime, Edna Lyons, Veronica Babbitt, Ethel Bishop, Katherine Collins, Anna Clancy, Mary Golden, Emily Knotek, Helen Ann Hughes.

Probationers who have been members of the Sodality before entering the school of nursing may be transferred to the nurses' Sodality, and have their names enrolled on the register when they are accepted into the school and are given the uniform of the student nurse. At this meeting was inaugurated the custom of wearing the Sodality pin, which has been accepted as the outward sign of a sodalist. This pin, a small gold emblem, is to be worn on the left side of the cap, and gives evidence that the wearer desires to be known as a high standard nurse.

A Gifted Nurse and Teacher Dies

At St. John's Hospital, Fargo, N. Dak., on Oct. 25, occurred the death of Miss Ellen Boyle, R.N., until recently assistant superintendent of nurses at St. John's.

Miss Boyle graduated from St. Mary's Hospital, Minneapolis, Minn., in 1923, and became assistant superintendent of nurses there after graduation. A year later she was appointed to a similar position at St. John's, Fargo, N. Dak., resigning last August in order to take up post-graduate studies. While doing private duty before going to the university she contracted a heavy cold resulting in her death from pleural pneumonia.

Miss Boyle's coworkers testify to her professional skill and efficiency combined with kindness and sympathy to a marked degree. She was a successful teacher, teaching carefully and checking results. Her personal example of dignity and service was not the least of the things she taught. She was deeply religious and a truly spiritual color pervaded all her work.

At the time of her death Miss Boyle was twenty-seven years old, the first to die in a family of twelve children. Funeral services were held at Sheldon, N. Dak., the family home.

How About It?

St. Joseph's has made a valuable addition to her already extensive curriculum. This is something new and like all new things, is decidedly valuable to us. In fact it is what every school for nurses should have,—and that is a weekly class in religion of one hour's duration. Father Camillus, a Capuchin Father from St. Francis Monastery, is the brilliant and charitable one who gives his time to this work.

It has been noticed that many student nurses are quite ignorant concerning this greatest factor in the mental equipment of the model nurse. The attention of the Sodality was drawn to this deficiency, and encouraged by Sister Alberta, our superintendent, we decided to establish a weekly class in religion, and with Sister Alberta's generous help the decision has been carried out. Now, once a week every nurse in training takes her place in the classroom and betters herself along this line. We happen to have enough non-Catholic girls in training to fill the demand for relievers during that hour and arrangements are being made so that these girls also can attend class in turn.

During the first half hour Father Camillus lectures to us, carefully following a given outline. At the end of that half hour we are at liberty to ask any questions on the material covered in that day's lecture. These discussions settled, the question box is opened and any other questions that came to our minds during the week and were put into the box are fully answered.

The result of these lectures **has been:** enthusiastic discussions among the nurses outside the classroom; attempts to prove statements made; dirty pages on our formerly dusty Catholic Encyclopedias; and a broader and clearer vision of our Faith.

The result of these lectures **is going to be:** enthusiastic discussions between nurse and patient; more death bed conversions; more converts to our Faith and, consequently, more repentant sinners discharged than formerly.

RETREATANTS AT MISERICORDIA COLLEGE, DALLAS, PA.

—Marjorie L. Crowley, St. Joseph's Hospital, Milwaukee, Wis.

Immaculate Conception Sodality

On Sept. 10, 1926, the first regular meeting of the nurses' Sodality at St. Martha's Hospital, Antigonish, N. S., Canada, took place. It was resolved that the Sodality be named "The Immaculate Conception." A motion was carried that a tree should be planted as a symbol that the Sodality should grow, blossom, and bear fruit even as a tree. A very interesting reading entitled "Another Christ" was read by Miss McKinnon, after which it was resolved that the "Good Reading Division" prepare the next meeting's program.

The nurses' Sodality held their next meeting on Sept. 17 at which Sister M. Jovita and Sister M. Joseph were present as guests. After roll call the librarian read her report announcing that two books had been donated by Rev. Mother Ignatius and the promise of fourteen volumes by Rev. M. M. Doyle. A note of thanks will be tendered to the donors. A brief address was given by Sister M. Jovita, superintendent of nurses. It was voted that the "Social and Devotional Division" entertain at the next meeting.

The Sodality held its third meeting on September 24, the feast of Our Lady of Mercy. The guests at this meeting were Rev. Dr. M. M. Coady, Mother M. Ignatius, Sister M. Immaculata, and Sister Mary James. Dr. Coady gave an address on "The Value of Good Reading."

The Bishop's appointment of Rev. Dr. Coady as Spiritual Director of the Sodality of the Immaculate Conception was a source of gratification.

Sodality at Mercy Hospital, Davenport, Iowa

The Sodality of Mercy Hospital, Davenport, Ia., under the direction of Father Takkenberg, chaplain of the hospital, meets every Sunday from Oct. 1 to June 1. On the first Sunday of each month, including the summer months, the Sodality receives Holy Communion in a body. A Catholic library of about 600 volumes at the disposal of the hospital will be increased by a definite number of volumes each year. In addition to the stamp collecting work done for the missions, the Sodality will probably devote some of their time toward helping a struggling suburban parish church.

Twenty-six Nurses Enter Course. The first year's student nurses' class at St. Mary's Hospital School of Nursing, Madison, Wis., formed in September, has an enrollment of twenty-six young women. This brings the total number of nurses registered up to fifty-seven. Edna Rubado, who joined the Order of the Sisters of St. Mary in 1923, and was one of the first girls to enroll in the nursing school at St. Mary's, is visiting the hospital and friends in the city. She is now Sister M. Caritas, and is located in St. Louis.

Twenty-seven Young Women Registered at Nursing School. On September 1, St. Agnes Hospital School of Nursing, Fond du Lac, Wis., had an enrollment of twenty-seven. The Sisters in charge were preparing for the introduction of a new course of study. Since the requirements of the school have been raised it ranks with the leading institutions of its kind in the country. The course at St. Agnes' covers a period of three years.

New Class Starts Work. During the first week in September twenty student nurses, one of the largest classes ever admitted to the hospital, began their course at St. Joseph's Hospital School of Nursing, Ashland, Wis. The new class was addressed by Miss Adda Eldredge, R.N., director of the Bureau of Nursing Education of the State Board of Health, who told them of the conditions encountered in the nursing profession.

Graduates Present Skeleton. It was recently announced that the graduating class of St. Joseph's Hospital at Superior, Wis., presented the hospital laboratory a new skeleton. The old one had been worn out with demonstration work.

Vegetable Fats Commended. The leading health authorities of the country favor vegetable fats in preference to animal fats. Their preference is based on digestibility, palatability, caloric value, and variety in diet. They state that because vegetable fats have a lower melting point than animal fats they are more easily digestible in that food does not soak the grease as much. Leading specialists state that in connection with infant feeding, they have found that vegetable fats are better handled by most children without the harmful effects derived from animal fats.

SUPPLEMENT TO
HOSPITAL PROGRESS,
JULY, 1926.

"Cancer"[1]

Rev. C. B. Moulinier, S. J.

I WOULD ask you all to resolve yourselves into a meeting of scientific hospital people, laboratorians, lovers of the truth and despisers of all untruth, pretense, quackery and fakery, because what I am going to say to you I believe, as a man, as a priest, not as the President of the Catholic Hospital Association but as a man and as a priest, is worth giving to you and this is one means of getting it to the world.

You know how terrible a plague cancer is, carcinoma and sarcoma. You know that in the United States alone some 100,000 persons die every year. If that is true, there are very likely today a million people who have it. You have been reading for months back and years back about efforts at the treatment of cancer, and some few statements as to the discovery of the cause of cancer, especially in recent months in England and in France. You know what surgery has done when an early condition of cancer is revealed; you know what x-ray has done; you know what radium has done. You perhaps know, as intelligent hospital people and laboratorians, that most of the scientific world, perhaps ninety per cent, has thought that cancer is not due to a micro-organism. Perhaps you also know that they are so convinced of that thought that they won't even listen to anything that indicates that cancer is due to an organism, a parasite.

You have all grown, in the last twelve years especially, since the organization of this Association, in your respect for organized medicine. The Catholic Hospital Association, which has just adjourned, is one of the forms of organized medicine, clinical medicine at least. You know the A. M. A.; you know the College of Surgeons; you know the College of Physicians; you know the various other organizations, the county medical societies and the state medical societies, and you know that I yield to no one in my respect and admiration for organized medicine. You know how I have labored with them, cooperated with them, gained help from them and spread it wherever I could. You know, too, I am sure, how zealous I am in regard to science, the scientific investigations, the checking up on results, the testing of every fact.

You have heard me speak about finding the facts, filtering the facts in a well-balanced scientific mind, and then facing them fearlessly. You know that. It is with all that background of my activities and of my mind that I am bold enough, determined enough to have you here to listen to something about cancer that has not yet gotten to the world.

For five years I have known about a laboratory that claims to have isolated the germ that causes cancer. I have been there repeatedly. Hundreds of times I have seen what they claim is the germ. I have seen it cultured on a medium. I have seen that same germ put into animals and produce what they claim is cancer; not being a pathologist, not being a bacteriologist, I have just used my eyes and my common sense. I have had some of the biggest men in the medical profession go to that laboratory and they were amazed at what they saw. Yet, organized medicine, the American College of Surgeons, the A. M. A., is not brave enough to be here today and stand back of the simple, simple thing that is going to be said. I don't blame them, quite. If I were involving the Catholic Church, the Catholic Hospital Association in something that I didn't know pretty much about, in something that I wasn't convinced is at least so credible that it deserves a trial, I wouldn't be here even as a private individual and I wouldn't ask you as private representatives of your hospitals to be here, and I wouldn't ask any of these laymen and nurses to be here. Therefore, we are here to learn just a few little facts and you are here to cooperate in verifying those facts, if you will.

I ask you, therefore, with all the earnestness, all the personal influence I may have, to come up to this table here and give your name to the Secretary, Mr. Dundon, when the meeting is over, if you wish to cooperate in testing out the truth or the falseness of a claim that is now being made, I hope, before the whole world.

Yesterday when Dr. Bloodgood and Dr. Crile were here, I said to them in about two minutes, "After five years of interest in cancer, as you know, (because I often talked with them about it), and in spite of the fact that you don't believe cancer is due to a micro-organism, I want you, as men who love the truth, who spoke so beautifully about what the spirit of a hospital should be in research, in love of the truth and service, to show that you believe in what you said, and I want you to take some tubes of this medium that is claimed to be able to isolate the germ with you and test it out."

I said, "The more convinced you have been in the past that it is not possible, not likely, that cancer is due to a germ, the better I will be pleased, because I believe you are honest men and will recognize facts when you see them."

They said, "Father, we are delighted," and Dr. Bloodgood just rammed his tubes into his pocket and said, "I will get at it within twelve hours, after I get home."

[1]**Note: The present address was delivered extempore immediately after the close of the Convention of the Catholic Hospital Association, at Chicago, June 17. It is believed that the message which it conveys, is of such importance and immediate interest to all the Sisters who heard it and to all hospital workers in general, that it is printed here without revision or correction.**

There are other people doing the same thing now in New York and other parts of the country, and I will call upon you as individuals, as superiors of hospitals, as technicians, as laboratorians, to put your names down here and we will send you some tubes of the culture medium with the formula that is used in making it up, so that you may go on, you may get your pathologists and your bacteriologists and any other of your men who have a scientific bent, clinical men, to work out the fact, the truth, as to whether this medium is what it is claimed to be. Isn't that simple? Isn't that love of the truth? Isn't that worthy of you and of me as women and men who want to know the truth, who want to help humanity, who want to do any little thing we can to relieve the terrible suffering that has come to the world from cancer? That is all it is. If there is any humbug about it, if there is any fakery about it, if there is any exaggeration about it, if there is any self-deception about it, the sooner we know it, the better, and the only way to find it out is for a large number of laboratories and men and women who love the truth and love human beings to get at it.

The Catholic Hospital Association as an organization doesn't want to claim any credit; it doesn't want its name linked up with it; it is just this group of human beings that I am asking to help to find out whether this culture medium is what it claims to be, namely, a means of cultivating the organism that causes cancer, both carcinoma and sarcoma, if that culture medium is properly inoculated with cancerous tissue, or with the blood from an unmistakable cancerous patient, I suppose in some little advanced condition, and even of the urine of patients that have cancer of the bladder or of the kidney or a highly advanced condition of cancer that has got into the system thoroughly. That is the simple claim. The medium is a simple one. You will get almost as much as you want of it; you will get the formula at the time you get the tubes and then you can go on and make it in any abundance.

In other words, we are just organizing ourselves into a research committee, calling on the hospitals, and I hope before two or three days are over, or so, all the hospitals of this Continent and of the world will be doing the same thing, so that within a month, two months, three months, six months, there will be no possible room for doubt as to whether or not cancer is due to a germ, at least as far as this medium is concerned in the discovery or in the cultivation of the microorganism.

This medium may be worth nothing; we may be just wasting our time as far as the sureness and accuracy of the power of cultivating the microorganism is concerned. It may be that the ninety per cent of the medical profession are correct, that cancer is not due to a germ, that it is due to some defective metabolism, that it is due, as you hear so often, to irritation. Let's find out whether that is true; let's test this culture medium. Here we are being given the opportunity.

I know two men who are now instrumental in presenting it to the world. I have been trying for five years to bring about this frank and open statement to the scientific people. I would be delighted if all the medical men of this Continent were here in this room listening. I hope that this medium will get into their hands. I hope that the most hard-boiled and conservative scientific men of the Continent will get their chance to test it. I know it is going to fail here and there because of defective technic. I am sure we are going to get adverse reports in the beginning. I am not yet scientifically sure that it is all that it claims to be, but I am sure of this, that any honest person wants to find out whether or not it is, and that is all we are after, what it claims to be. You can help us.

Mr. Tom Deacon is the one who discovered the unusual culture medium not yet known, not yet used in scientific laboratories. If Tom has found the right thing, God bless him. If he hasn't, we want to know it. Dr. M. J. Scott is the one who has drawn it out from its obscurity and seclusion and secrecy and wants to give it to the scientific world. God bless him. (Applause.) And I must not let this moment pass without saying, God bless the Cudahy family of Milwaukee who have made possible, through their generous contribution and standing of expense, the going through of some experiments that are very convincing. These men who have been working for years and wasting their lives have spent all their money and they had to have some money to carry it on and bring it to where it is now. Just say some prayers for all of these people, real, deep, earnest prayers.

What have we been talking about this week? About the God of truth, about the laws of God permeating this whole universe, about truth being the thing that the human mind is after. Why we are full of it, and if there is any truth in this, and if any people have helped to bring out the truth by their self-sacrificing labor, the men I have mentioned, the technician at the Cudahy plant, Mr. Griem, and Mr. Michael Cudahy and his dear mother, Mrs. Patrick Cudahy, God reward them in this life and in the next.

We want the truth. We want to help poor, suffering humanity. We want to get whatever may follow the fact of establishing the etiology of it, the cause of it by whatever will come. That is for the scientific world to work out in the next month, two months, three months, six months, a dozen years, if necessary, but we have been working in the dark. Why, if it is a fact that cancer is due to a microorganism, nearly all the things that all the great surgeons and all the great medical men that I have been listening to for the last ten years are wrong, are way off the track, are utterly out of date. Let us find out whether we are passing into a new era of scientific knowledge and light in regard to cancer. The only way to find out is for all of us to get together and test this means.

You know how poor Pasteur was condemned by the brilliant, self-sufficient, Scientific Academy of Paris when he told them that fermentation was due to a micro-organism. He was put aside, brushed aside as a mere chemist and microscopist; he wasn't even an M. D.; therefore, he couldn't do anything. Well, he has established the science of bacteriology, and here we get this medium from a technician of a laboratory. I don't care whether it came from a chimney sweeper or from a hobo on the street corner, if it is true, we want it, and now we are going to try to test out the truth of it.

Sisters, especially superiors and directors of laboratories, please don't fail to give your names, sign them here, mention your hospital, and just as soon as it can be done you will get two, three, four, five tubes containing this medium and you will get the formula of it. Then get busy. You know what was said to you yesterday on the matter of research, what was said to you this morning; it is your duty, your obligation. You have to add to scientific knowledge if it is at all possible. Here is an opportunity, the like of which I believe was never given to any human group. You will have difficulty, you will have opposition, you will have criticism; some of your doctors will get upset about it; they will say, "Nonsense, nonsense, nonsense, the medical profession, the surgeon, the pathologist and the bacteriologist, the biggest of them in the country have concluded that cancer cannot be due to a germ." But not one of them has proved it so. It is just a negative statement. We want to find out in the case of this particular culture medium whether or not it will do what it is claimed it has done and what I think I have seen with my own eyes it has done, namely, once more, culture the organism from tissue and from blood; I have seen that; from the urine I haven't seen. I have seen that same organism injected into animals, dogs and monkeys and guinea pigs and rabbits and mice, and I have seen what they told me were cancer lesions, those hard nodules. I saw a monkey autopsied and he had those cancer lesions all through his body, in his heart, in his kidney, in his liver, and there are hundreds of animals now preserved that have it and there are others that have been infected and perhaps within a week or two they will come down, as we hope.

You can go through that process. Then when you produce the lesions in your laboratories, you can section those lesions and you can recover the organism and you can re-culture from those lesions the same organism. I have seen that done, unless I was seeing potatoes instead of microorganisms, and unless the people who are telling me about it absolutely lied to me, and I can't think of any motive that would prompt them to lie to me.

Get your bacteriologists, get your pathologists, get your technicians and go to work. It is all a matter of plain fact and experiment.

I don't think there is anything more for me to say. This has been an occasion I have looked forward to; I have been in a terribly nervous condition for the last few days because of the dread so many people have; they didn't want to involve the Catholic Church, as though the Catholic Church were afraid of the truth; they didn't want to involve the Catholic Hospital Association, as though the Catholic Hospital Association was afraid of the truth. Now it wasn't that; they were afraid of the name of the Catholic Church and the Catholic Hospital Association being mixed up and associated with some quack stuff. It isn't quack stuff, it isn't fakery, it isn't a humbug of any kind, to ask you laboratorians, you superiors of hospitals to put down your names here and to get some of this medium and to test it out in your laboratories. That is what Dr. Bloodgood is very likely doing today in Baltimore. He wasn't afraid to do it. Some people in New York (I won't mention their names; you would be frightened at their names) are doing it. I think you would be afraid that we were thinking of great money. We are not; we are just thinking of the truth and the means to go on with this thing.

As the meeting adjourns now, this impromptu, this non-Catholic association meeting, you come up and give your names and I will guarantee you will get the formula for the medium and you will get a fair amount of it, as much as we can afford to send you.

Thank you very much for being here and listening to me. (Applause.)

CULTURE FORMULA

I. Red Geranium, everything above root, cut up, boil one hour in one litre of water, using a glass or enameled container, wash and squeeze through several thicknesses of cheese cloth..

II. Take two (2) oz. Irish moss, boil one hour in 1 litre of water, strain (in same manner).

III. Take two (2) oz. Iceland moss, boil one hour in one litre of water, strain (in same manner).

All should be autoclaved thirty minutes at twenty lbs. pressure.

Keep in cool place.

Mix—No. I—Two (2) parts
No. II—One (1) part
No. III—One (1) part

Then add peptone 1 to 1½%, mix well and autoclave 30 minutes at 20 lbs.

Preparation is now ready as a liquid culture medium. To make a solid medium add 2 to 2½% agar-agar. Autoclave again, take reaction and bring P. H. to 7.6.

* * *

Make smear in usual manner and stain with dilute carbo-fuchsin.

To INNOCULATE ANIMAL: After obtaining a good growth of the organism, add to the culture tube 40 to 60 c.c. sterile water, mix by shaking tube. Then inject one c.c. of this solution into the lip, breast or groin of the animal. Repeat injection at the same place once every week for five to eight weeks, until a take appears.

SUPPLEMENT TO
HOSPITAL PROGRESS,
JULY, 1926.

"Cancer"[1]

Rev. C. B. Moulinier, S. J.

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They said, "Father, we are delighted," and Dr. Bloodgood just rammed his tubes into his pocket and said, "I will get at it within twelve hours, after I get home."

[1]**Note: The present address was delivered extempore immediately after the close of the Convention of the Catholic Hospital Association, at Chicago, June 17. It is believed that the message which it conveys, is of such importance and immediate interest to all the Sisters who heard it and to all hospital workers in general, that it is printed here without revision or correction.**

There are other people doing the same thing now in New York and other parts of the country, and I will call upon you as individuals, as superiors of hospitals, as technicians, as laboratorians, to put your names down here and we will send you some tubes of the culture medium with the formula that is used in making it up, so that you may go on, you may get your pathologists and your bacteriologists and any other of your men who have a scientific bent, clinical men, to work out the fact, the truth, as to whether this medium is what it is claimed to be. Isn't that simple? Isn't that love of the truth? Isn't that worthy of you and of me as women and men who want to know the truth, who want to help humanity, who want to do any little thing we can to relieve the terrible suffering that has come to the world from cancer? That is all it is. If there is any humbug about it, if there is any fakery about it, if there is any exaggeration about it, if there is any self-deception about it, the sooner we know it, the better, and the only way to find it out is for a large number of laboratories and men and women who love the truth and love human beings to get at it.

The Catholic Hospital Association as an organization doesn't want to claim any credit; it doesn't want its name linked up with it; it is just this group of human beings that I am asking to help to find out whether this culture medium is what it claims to be, namely, a means of cultivating the organism that causes cancer, both carcinoma and sarcoma, if that culture medium is properly inoculated with cancerous tissue, or with the blood from an unmistakable cancerous patient, I suppose in some little advanced condition, and even of the urine of patients that have cancer of the bladder or of the kidney or a highly advanced condition of cancer that has got into the system thoroughly. That is the simple claim. The medium is a simple one. You will get almost as much as you want of it; you will get the formula at the time you get the tubes and then you can go on and make it in any abundance.

In other words, we are just organizing ourselves into a research committee, calling on the hospitals, and I hope before two or three days are over, or so, all the hospitals of this Continent and of the world will be doing the same thing, so that within a month, two months, three months, six months, there will be no possible room for doubt as to whether or not cancer is due to a germ, at least as far as this medium is concerned in the discovery or in the cultivation of the microorganism.

This medium may be worth nothing; we may be just wasting our time as far as the sureness and accuracy of the power of cultivating the microorganism is concerned. It may be that the ninety per cent of the medical profession are correct, that cancer is not due to a germ, that it is due to some defective metabolism, that it is due, as you hear so often, to irritation. Let's find out whether that is true; let's test this culture medium. Here we are being given the opportunity.

I know two men who are now instrumental in presenting it to the world. I have been trying for five years to bring about this frank and open statement to the scientific people. I would be delighted if all the medical men of this Continent were here in this room listening. I hope that this medium will get into their hands. I hope that the most hard-boiled and conservative scientific men of the Continent will get their chance to test it. I know it is going to fail here and there because of defective technic. I am sure we are going to get adverse reports in the beginning. I am not yet scientifically sure that it is all that it claims to be, but I am sure of this, that any honest person wants to find out whether or not it is, and that is all we are after, what it claims to be. You can help us.

Mr. Tom Deacon is the one who discovered the unusual culture medium not yet known, not yet used in scientific laboratories. If Tom has found the right thing, God bless him. If he hasn't, we want to know it. Dr. M. J. Scott is the one who has drawn it out from its obscurity and seclusion and secrecy and wants to give it to the scientific world. God bless him. (Applause.) And I must not let this moment pass without saying, God bless the Cudahy family of Milwaukee who have made possible, through their generous contribution and standing of expense, the going through of some experiments that are very convincing. These men who have been working for years and wasting their lives have spent all their money and they had to have some money to carry it on and bring it to where it is now. Just say some prayers for all of these people, real, deep, earnest prayers.

What have we been talking about this week? About the God of truth, about the laws of God permeating this whole universe, about truth being the thing that the human mind is after. Why we are full of it, and if there is any truth in this, and if any people have helped to bring out the truth by their self-sacrificing labor, the men I have mentioned, the technician at the Cudahy plant, Mr. Griem, and Mr. Michael Cudahy and his dear mother, Mrs. Patrick Cudahy, God reward them in this life and in the next.

We want the truth. We want to help poor, suffering humanity. We want to get whatever may follow the fact of establishing the etiology of it, the cause of it by whatever will come. That is for the scientific world to work out in the next month, two months, three months, six months, a dozen years, if necessary, but we have been working in the dark. Why, if it is a fact that cancer is due to a microorganism, nearly all the things that all the great surgeons and all the great medical men that I have been listening to for the last ten years are wrong, are way off the track, are utterly out of date. Let us find out whether we are passing into a new era of scientific knowledge and light in regard to cancer. The only way to find out is for all of us to get together and test this means.

You know how poor Pasteur was condemned by the brilliant, self-sufficient, Scientific Academy of Paris when he told them that fermentation was due to a micro-organism. He was put aside, brushed aside as a mere chemist and microscopist; he wasn't even an M. D.; therefore, he couldn't do anything. Well, he has established the science of bacteriology, and here we get this medium from a technician of a laboratory. I don't care whether it came from a chimney sweeper or from a hobo on the street corner, if it is true, we want it, and now we are going to try to test out the truth of it.

Sisters, especially superiors and directors of laboratories, please don't fail to give your names, sign them here, mention your hospital, and just as soon as it can be done you will get two, three, four, five tubes containing this medium and you will get the formula of it. Then get busy. You know what was said to you yesterday on the matter of research, what was said to you this morning; it is your duty, your obligation. You have to add to scientific knowledge if it is at all possible. Here is an opportunity, the like of which I believe was never given to any human group. You will have difficulty, you will have opposition, you will have criticism; some of your doctors will get upset about it; they will say, "Nonsense, nonsense, nonsense, the medical profession, the surgeon, the pathologist and the bacteriologist, the biggest of them in the country have concluded that cancer cannot be due to a germ." But not one of them has proved it so. It is just a negative statement. We want to find out in the case of this particular culture medium whether or not it will do what it is claimed it has done and what I think I have seen with my own eyes it has done, namely, once more, culture the organism from tissue and from blood; I have seen that; from the urine I haven't seen. I have seen that same organism injected into animals, dogs and monkeys and guinea pigs and rabbits and mice, and I have seen what they told me were cancer lesions, those hard nodules. I saw a monkey autopsied and he had those cancer lesions all through his body, in his heart, in his kidney, in his liver, and there are hundreds of animals now preserved that have it and there are others that have been infected and perhaps within a week or two they will come down, as we hope.

You can go through that process. Then when you produce the lesions in your laboratories, you can section those lesions and you can recover the organism and you can re-culture from those lesions the same organism. I have seen that done, unless I was seeing potatoes instead of microorganisms, and unless the people who are telling me about it absolutely lied to me, and I can't think of any motive that would prompt them to lie to me.

Get your bacteriologists, get your pathologists, get your technicians and go to work. It is all a matter of plain fact and experiment.

I don't think there is anything more for me to say. This has been an occasion I have looked forward to; I have been in a terribly nervous condition for the last few days because of the dread so many people have; they didn't want to involve the Catholic Church, as though the Catholic Church were afraid of the truth; they didn't want to involve the Catholic Hospital Association, as though the Catholic Hospital Association was afraid of the truth. Now it wasn't that; they were afraid of the name of the Catholic Church and the Catholic Hospital Association being mixed up and associated with some quack stuff. It isn't quack stuff, it isn't fakery, it isn't a humbug of any kind, to ask you laboratorians, you superiors of hospitals to put down your names here and to get some of this medium and to test it out in your laboratories. That is what Dr. Bloodgood is very likely doing today in Baltimore. He wasn't afraid to do it. Some people in New York (I won't mention their names; you would be frightened at their names) are doing it. I think you would be afraid that we were thinking of great money. We are not; we are just thinking of the truth and the means to go on with this thing.

As the meeting adjourns now, this impromptu, this non-Catholic association meeting, you come up and give your names and I will guarantee you will get the formula for the medium and you will get a fair amount of it, as much as we can afford to send you.

Thank you very much for being here and listening to me. (Applause.)

CULTURE FORMULA

I. Red Geranium, everything above root, cut up, boil one hour in one litre of water, using a glass or enameled container, wash and squeeze through several thicknesses of cheese cloth..

II. Take two (2) oz. Irish moss, boil one hour in 1 litre of water, strain (in same manner).

III. Take two (2) oz. Iceland moss, boil one hour in one litre of water, strain (in same manner).

All should be autoclaved thirty minutes at twenty lbs. pressure.

Keep in cool place.

Mix—No. I—Two (2) parts
No. II—One (1) part
No. III—One (1) part

Then add peptone 1 to 1½%, mix well and autoclave 30 minutes at 20 lbs.

Preparation is now ready as a liquid culture medium. To make a solid medium add 2 to 2½% agar-agar. Autoclave again, take reaction and bring P. H. to 7.6.

* * *

Make smear in usual manner and stain with dilute carbo-fuchsin.

To INNOCULATE ANIMAL: After obtaining a good growth of the organism, add to the culture tube 40 to 60 c.c. sterile water, mix by shaking tube. Then inject one c.c. of this solution into the lip, breast or groin of the animal. Repeat injection at the same place once every week for five to eight weeks, until a take appears.